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# CITY GOVERNMENT

OCTOBER, 1897.

## IN THIS NUMBER:

Full Report of the First Convention of the  
League of American Municipalities.

Private or Municipal Ownership—Which?—  
Mayor John MacVicar, of Des Moines.

Street Cleaning—George E. Waring, Jr., of  
New York.

Uniformity of Laws Pertaining to Municipal-  
ities—Mayor J. A. Johnson, of Fargo.

A Municipal Water and Light Plant—Mayor  
F. G. Pierce, of Marshalltown.

Telegraphic Systems for the Facilitation  
of Fire and Police Service—Joseph W.  
Stover, of New York.

The Relation of Mayors and Councilmen  
to Sanitary Problems—Alexander Potter,  
C. E., of New York.

An Iron-Clad City Charter—J. J. McCarty, of  
St. Paul.

About a Municipal Water Plant—John Caul-  
field, of St. Paul.

Report of National Street Lighting Conven-  
tion.

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devoted to the  
Practical Affairs  
of Municipalities

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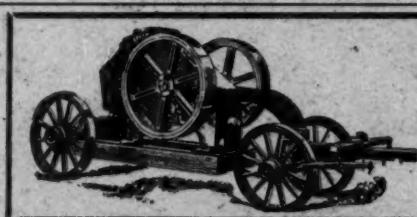
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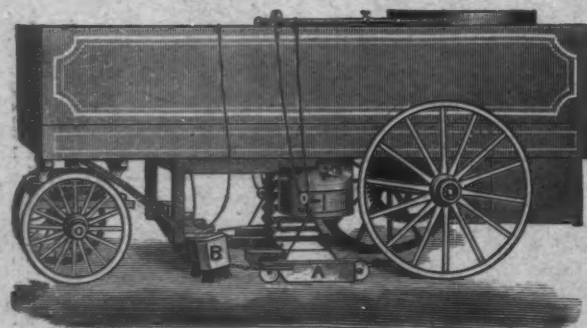
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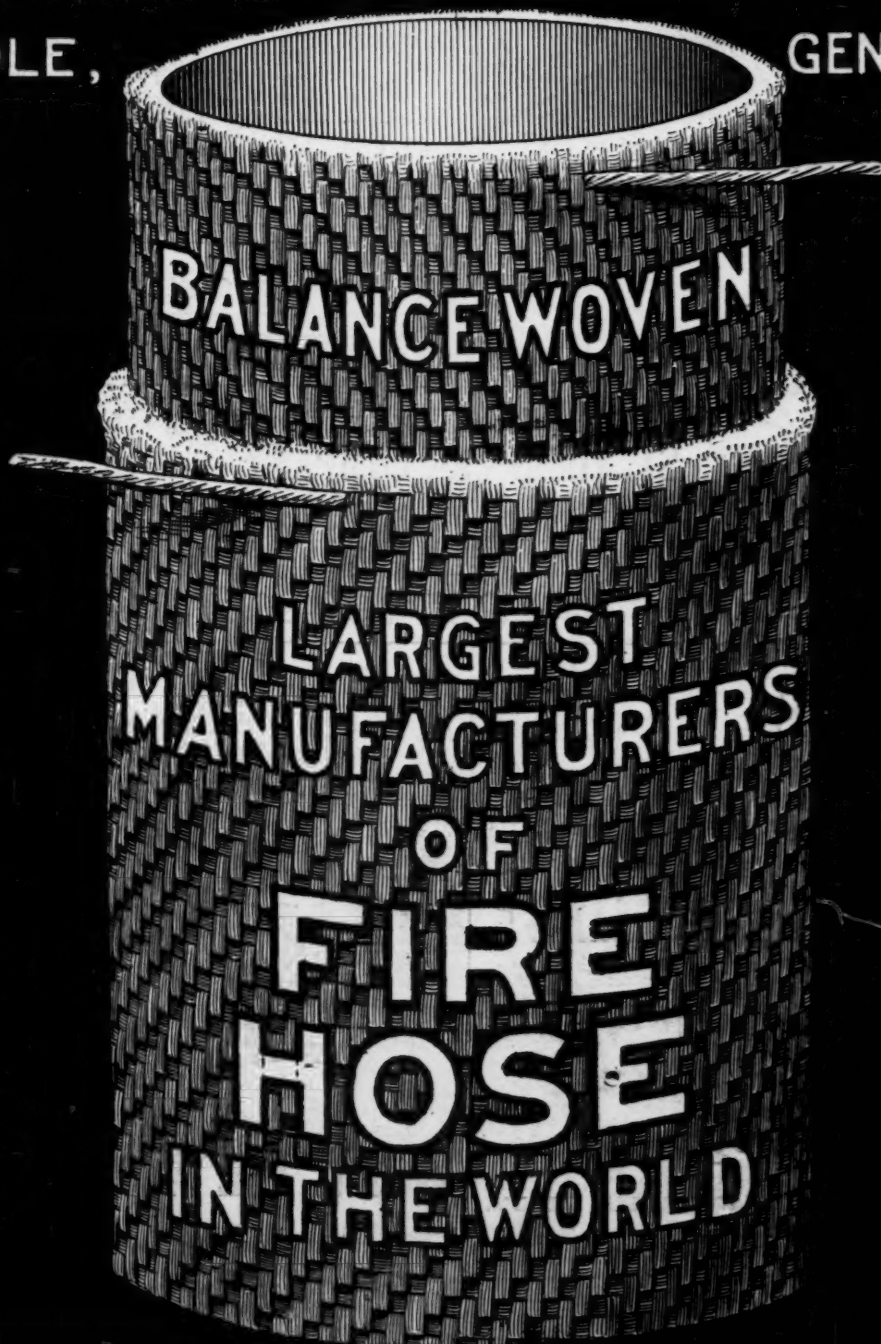


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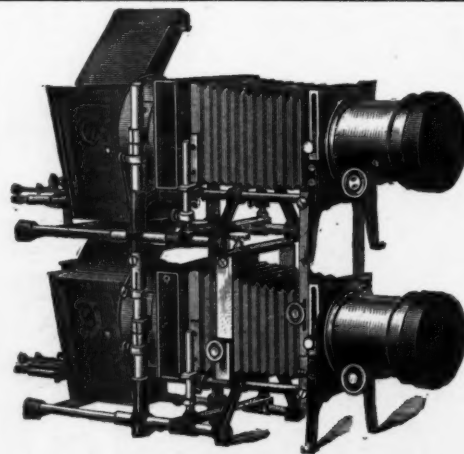
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#### BUREAU OF WATER REGISTER.

NEW YORK, December 30, 1896.

Record of Test of  $\frac{5}{8}$  in. Standard Water Meter.

Size of Outlet.	No. of feet of water passed through Meter.	Time of Test, hours and minutes.	Head pressure, pounds.	Back pressure, pounds.	Register of Meter.	No. of feet of water in tank.
$\frac{5}{8}$ in.	100	28m.	34	7	100 $\frac{3}{10}$	100
		28m.	34	7	101	
$\frac{1}{2}$ in.	100	40m.	34	22	100 $\frac{7}{10}$	100
		40m.	34	22	101 $\frac{3}{10}$	
$\frac{3}{8}$ in.	50	30m.	34	28	50 $\frac{3}{10}$	50
		36m.	34	28	50 $\frac{1}{10}$	
$\frac{1}{4}$ in.	50	1h.	34	32	51	50
		1h.	34	32	51 $\frac{3}{10}$	
$\frac{1}{8}$ in.	25	2h.	34	33	25 $\frac{6}{10}$	25
		2h.	34	33	25 $\frac{7}{10}$	
$\frac{1}{16}$ in.	25	5h. 8m.	32	31	25 $\frac{1}{10}$	25
		19h.	34	33 $\frac{1}{2}$	25 $\frac{8}{10}$	
$\frac{1}{32}$ in.	25	19h. 35m.	32	31 $\frac{1}{2}$	25 $\frac{2}{10}$	25

NOTE.—Figures in heavy-faced type denote results of second test after 100,000 feet of water passed through meter.

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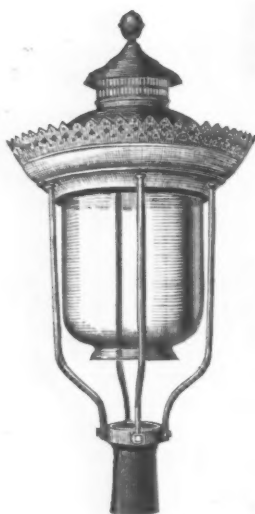
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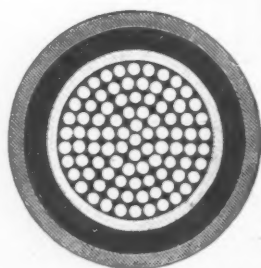
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# CITY GOVERNMENT.

[Entered as Second-Class Matter at the New York, N. Y., Post Office, August 12, 1896.]

Vol. 3. No. 4.

NEW YORK, OCTOBER, 1897.

\$3 A YEAR.

## LEAGUE OF AMERICAN MUNICIPALITIES.

PERMANENT ORGANIZATION FORMED AT  
THE IMMENSELY SUCCESSFUL  
COLUMBUS CONVENTION.

President—John MacVicar, Mayor, Des Moines, Ia.  
Vice-President—C. A. Collier, Mayor, Atlanta, Ga.  
Treasurer—Samuel L. Black, Mayor, Columbus, Ohio.  
Secretary—B. F. Gilkison, New York City.  
Trustees—John Warner, Mayor, Peoria, Ill.; F. A. Walker,  
Prest. Council, Trenton, N. J., and C. M. Leitch, Prest.  
Council, Wilmington, Del.  
Next Convention at Detroit, Mich.

### GOV. BUSHNELL'S ADDRESS OF WELCOME.

MR. CHAIRMAN, LADIES AND GENTLEMEN—No duty could be more pleasant than that of welcoming to Ohio and its capital city such a notable assembly of those who directly have charge of the affairs of many of the great municipalities of our country. Ohio has had in times past many conventions of a distinguished character. Here history has been made, and glowing records of good endeavor and purpose established. As a central meeting point between the great East and the great West, and as a broad gateway to the great South, Ohio has achieved some distinction in the line of being a field for the discussion of matters which are of common interest to our common people. To that fact may be attributed some part of the growth and development of that which has been called "the Ohio idea." Our sons and daughters of past generations and of the present have been reared in an atmosphere of debate, and have been in close touch with public issues of every kind. It is not strange, therefore, that from such a school



SAMUEL L. BLACK, TREASURER. 238



JOHN MACVICAR, PRESIDENT. 239



C. A. COLLIER, VICE-PRESIDENT. 240

The first national convention of mayors and councilmen, held at Columbus, Ohio, September 28 to October 1, was attended by 418 official delegates, representing 101 cities in twenty-three different States. Aside from these official delegates there were probably from 200 to 300 other visitors, among whom were a large number of ladies, exhibitors and newspaper representatives. The convention was an unqualified success, and the organization of the League of American Municipalities was effected with much enthusiastic interest.

### THE FIRST DAY.

It was just a little after 10:30 o'clock on Tuesday morning when Mayor Black, of Columbus, as chairman of the general committee, called the convention to order, and introduced Gov. Asa S. Bushnell, who welcomed the mayors and councilmen to the State of Ohio in the following language:

there should have gone forth those who have made their mark in all walks of life. But your congress, which is beginning today, will inaugurate another epoch. It will establish a new branch of activity for the Ohio idea, and give the view of another honorable pathway to those who strive for prominence in the affairs of men. I believe I am right in stating that this is the first gathering of its kind. It is unique in character, if prosaic in purpose. For the nature of your coming discussions, and the conclusions to be reached, must necessarily be based upon well-threshed material. Those who have acted for the public in municipal matters since the dawn of our advanced civilization have been confronted with the same problems, and each successive set of officers has wrestled with the same phases that come to them through the evolution of our everyday goods and ills. That the conditions have improved steadily, that the environments of our people in cities have become more and more satisfactory, and that the welfare of all our citizens has been guarded with more zealous care, furnish excellent proof of the virtue of the general cause. Your convention, therefore, would have every reason for its existence if its purpose was only to dwell upon the good record of the past. However, even long-tilled fields under modern

methods and careful husbandry can be made to produce bountiful harvests, and I know that this assemblage of municipal officers can effect fruitful results by the deliberations of the succeeding days. The close of this century seems to find us in a condition which presents as many things to be done in our cities and towns as there was at the time of the foundation of the centres of the population. No city is now so rich in excellent results but that there is room for more wealth in that way. Each urban community has its vexations and its evils; each has some natural difficulty to be overcome, either in the form and method of its government or in objects to be accomplished for the benefit of health, economy or utility.

It is not my purpose, nor is it my province to discuss, even in a general way, the various reforms which are presented constantly to our eyes. There are able men here whose allotted duty it is to give others the benefit of their experience and their wisdom. Mine is the task of expressing a fitting welcome to our good State, and incidentally to its beautiful and prosperous capital city. Pardon me, therefore, if I have encroached upon the prerogative of another, and let my excuse be that I am deeply interested in such matters as will come before you. Our welcome to you, whether you are Ohioans or guests from other of the magnificent commonwealths of our union, is as generous and as hearty as can be. That which you see you are invited to enjoy to the fullest extent. Our gates are open to you, and you are ours for the time being. We are proud that such a movement as this should have taken its first step upon Ohio soil. And I know that you will forgive our self-laudation when I say that it could not have found a better field for its youthful progress. Ohio is rich in history and honors; her people are the peer of any; her cities are shining monuments to patriotism, energy and thrift; her affairs, good tempered and loyal. Ohio represents one of the grandest achievements of our American civilization and enterprise. There is every reason why we should all be satisfied with your presence here. Even good old Dame Nature smiles upon us with a cloudless sky and with an atmosphere that is a tonic to weak and weary man. I trust your sessions and your intercourse, the business and the social side of your meeting, may be as profitable and pleasant as possible. Much good—infinite good, I might say—can come from this congress of municipal officers of American cities. It is a grand work before you—that of thinking, talking and eventually doing for the common weal to the end that the splendid record of our citizenship may be emblazoned with still richer text, and that as years run on we can stand even more boldly before the world and proclaim ourselves a happy, prosperous and contented people—those who have done their utmost to enjoy and use the blessings of a Gracious Providence, and who look forward with serene confidence to the commendation of the Maker of all things and the Master who caresses the head of the faithful servant.

I again bid you welcome to Ohio, and give you my warmest wishes for success and happiness.

At the conclusion of the Governor's address, Chairman Black announced that Mayor Carter H. Harrison, of Chicago, who had been put down on the programme for the response, was unable to be present on account of a threatened street railway strike, and called upon Mayor C. A. Collier, of Atlanta, Ga., to reply to Governor Bushnell's greeting. This call upon Mayor Collier was entirely unexpected, but he is one of those Southern orators who are always ready for emergencies of this kind, and his address was one of the best delivered during the whole convention. He said:

MR. MAYOR, GOVERNOR BUSHNELL, LADIES AND GENTLEMEN OF THE CONVENTION—Under the most favorable circumstances it would be, for a modest man like myself, a very embarrassing position to be placed in to respond to the warm, cordial greeting which you have heard from the lips of the Governor of this great State; but it is much more embarrassing to be

corralled, as I have been this morning, before I had even an opportunity of shaking from my garments the dust of travel, to remove the cinders and the smoke, and be asked to come here and fill the place on your programme of the distinguished mayor of the great city of Chicago. Recognizing, however, the embarrassment in which Mayor Black is placed, I consented to offer myself a willing sacrifice, and to agree that I would come here and rattle around a few minutes in Carter Harrison's shoes. (Laughter.)

I am sure I voice the sentiment of every delegate to this convention in congratulating the city of Columbus, and especially in congratulating its mayor, for the inauguration of this movement, which means more than any movement that I have known to be conceived and undertaken in many years. We can stand misgovernment and mismanagement to a certain degree in national—even in State affairs—but municipal government touches us at every turn. It is a matter that comes home to every citizen of every municipality of this broad country. And these great questions must be solved, these problems of municipal government, because they are questions in which every man and every city and every child of every city is vitally interested. This convention must needs be productive of great good. There are grave questions arising daily that you gentlemen, who represent the municipalities of our land all over its extent of territory, must cope with and solve. The very best way to meet these questions is in conventions like these, where mind can rub against mind, and where ideas new to some may be disseminated finally to result in good to all. I congratulate the city of Columbus and the mayor of Columbus in being instrumental in bringing this convention here.

I thank, too, the Governor of this great State for the cordial greeting he has extended to us. Coming from the city of Atlanta, I feel, as do our people, especial gratitude to this great State. Two years ago we inaugurated, in the midst of the great business depression then existing, an exposition which was intended to show the resources of that country and the capabilities of her people. No State in the union did so much to add honor and dignity and completeness to that exposition as did the great State of Ohio. (Applause.) It was, then, with especial pleasure that I found it convenient to come to this convention and to bring with me a representative delegation from our general council. We are here to learn. We recognize the fact that in these older communities there are appliances, there are methods that probably we have not attained. We want to learn. We want to know the very best methods, the very best appliances and the very best means for giving our people the very best government this country can afford. (Applause.) We have come to this convention in the earnest desire that we may derive much good from its deliberations in this direction.

I was impressed yesterday as I was riding around the streets of Cincinnati that upon every schoolhouse we saw floating the flag of our common country. (Applause.) We come to you, gentlemen, from the South, and I am glad to say that, notwithstanding the dread visitation which has come upon a great portion of our country, the South is very well represented here today. And we come to you with our hearts in our hands, and say to you that we desire to join with you in making this—. (The remainder of the sentence was lost in vociferous applause.) I thank you for myself and for the gentlemen who have come with me the long distance from the South for the manner in which you have received us. I thank God that we live in a free country, and that we are all of one mind and one accord, to maintain it as the freest and the best country on the face of the earth. (Loud applause.)

Mayor Black then stated it seemed almost useless, after the good will that had been expressed, for him to welcome the guests on behalf of the city and express the gratitude that the city felt toward the visitors for honoring it with their presence. He said:

We will demonstrate to you before you have gone that our gates, our homes and our hearts are open to you. You are here



on the invitation of Columbus, and her people are grateful to you for your presence. They have wanted you here because you have a direct and personal interest in solving most serious problems confronting the American people. Great cities of this country look to this convention to pilot them through difficulties. If the municipalities are taken care of, little else is to be feared in our government. This conference marks a new epoch in municipal affairs. One city may differ some from another in the handling of great questions, but in the main their method is the same. When one city solves a problem, it is to the benefit of another, and others may be saved from pitfalls. We must get the people who make a study of these great problems to come to us, and we, with the machinery, will assist. It is easy for the reformer to stand ahead and cry "come on," but we are shackled by conditions and weighed down by difficulties. This thing of putting a government on paper and putting it into execution are radically different. What we want is that the men who put ideal governments on paper shall help put the ideas in practice. Let them bring forward a theory, and let us grasp it, and then let both put it into practice. It is common for public sentiment to say "the city is now in the hands of the

mayor of Niagara Falls; C. A. Collier, mayor of Atlanta, and Robert Pratt, mayor of Minneapolis. The remainder of the session was devoted to hearing the address of Joseph W. Stover, of New York, and the paper of William Brophy, of Boston.

Tuesday evening was devoted to the addresses of Henry Hopkins, secretary of the National Street Lighting Association, and John MacVicar, mayor of Des Moines. Following Mayor MacVicar's speech there was a general discussion of the subject of street lighting and municipal ownership of lighting plants.

#### THE SECOND DAY.

There was only one session on Wednesday, and this was devoted to the addresses of Mayor Johnson, of Fargo, and Mayor Quincy, of Boston, and the paper of Nathan Straus, of New York.

In the afternoon occurred the annual inspection of the



C. M. LEITCH, TRUSTEE. 241



FREDERICK A. WALKER, TRUSTEE. 242



JOHN WARNER, TRUSTEE. 243

politicians." The time is at hand when these people must put their shoulders to the wheel, do less criticising and more work.

At the conclusion of Mayor Black's brief speech, Frederick A. Walker, president of the council of Trenton, N. J., moved that the convention proceed to elect a chairman and secretary, and the motion prevailed. Mayor Johnson, of Fargo, in a neat speech, named Mayor Black for chairman, and his election was made by acclamation. Upon the motion of John Caulfield, of St. Paul, H. J. Gonden was made secretary. Delegate Walker moved that a committee of five be appointed by the chair to formulate a plan of permanent organization, and, after some discussion, the motion was adopted. A motion for the appointment of a committee on credentials was substituted by a motion to have the chairman of each delegation hand the names of the delegates to the secretary of the convention. The roll thus made up was to be considered the official roster.

At the Tuesday afternoon session Chairman Black appointed the following gentlemen to act as a committee to formulate a plan of permanent organization: John MacVicar, mayor of Des Moines; Frederick A. Walker, president of council, Trenton, N. J.; Arthur C. Hastings,

fire and police departments of the city of Columbus. The magnificent parade, showing the full strength and equipment of these public safety departments, was witnessed by the delegates from a special reviewing stand on State street. Mayor Black, Director of Public Safety Williams, Police Superintendent Kelly and Fire Superintendent Heinmiller were highly complimented by the visiting officials upon the excellent showing made by the policemen and firemen of Columbus.

#### THE THIRD DAY.

The Thursday morning session opened with the introduction of S. F. Peckham, of Ann Arbor, Mich., who delivered an address on "How to Secure a Good Asphalt Pavement." At the conclusion of Mr. Peckham's address there was a general discussion of the paving question, participated in by Mayor Green, of Binghamton; Alderman Rand, of Minneapolis; Alderman Coots of Detroit, and many others. The following resolutions were then adopted:

Offered by Mayor Gibson, of Zanesville, Ohio:

WHEREAS, Believing that the practical always excels in its teachings the theoretical, therefore be it

Resolved, That it is the sense of this convention that the sec-

retary of this body extend the congratulations of this assembly to the officers of the city administration of Columbus, for the very complete and most excellent display tendered the visitors by the police and fire departments of this city; and be it further

*Resolved*, That this convention commend those who took part in that exhibition for that thoroughness and discipline that so ably fits them to be trusted guardians of the public safety and public peace.

Offered by Alderman Ashley, of Detroit:

*Resolved*, That this convention extend to the mayor, board of aldermen, city officials and public-spirited citizens of Columbus our hearty thanks for their generous hospitality and the princely entertainment accorded to all those who had the good fortune to be present in their beautiful city during this week; also to the representatives of the public press for their extended and fair reports of the conference and information furnished the delegates; also to the gentlemen who have made the convention a success by their able and instructive papers on municipal questions, and to all those who have in every way contributed to make our visit pleasant and enjoyable.

Offered by Alderman Lavery, of Poughkeepsie, N. Y.:

*Resolved*, That the mayors and councilmen of the United States in convention assembled, are convinced of the efficiency of organized labor in advancing the interests of the laboring classes, and believe that the prosperity of our country is greatly dependent upon the payment of a living wage to the toilers of the nation; therefore be it

*Resolved*, That it is the sentiment and wish of this convention that the published report of its proceedings and addresses bear the typographical union label, and that all official notices and printed matter for this national body, should, so far as practicable, bear the typographical union label, and be performed by persons and firms employing and recognizing union labor.

The business session of the convention occurred on Thursday afternoon when the committee on permanent organization reported the following constitution, which was adopted section by section:

#### THE CONSTITUTION.

##### Article I.—Name and Objects.

SECTION 1.—The objects of this organization, which shall be known as the League of American Municipalities, shall be the general improvement and facilitation of every branch of municipal administration by the following means: First, the perpetuation of the organization as an agency for the co-operation of American cities in the practical study of all questions pertaining to municipal administration. Second, the holding of annual conventions for the discussion of contemporaneous municipal affairs. Third, the establishment and maintenance of a central bureau of information for the collection, compilation and dissemination of statistics, reports and all kinds of information relative to municipal government.

##### Article II.—Membership.

SECTION 1.—Any municipality in the United States or Canada may become a member of this organization.

SECTION 2.—Each and every municipality becoming a member of this organization shall pay an annual membership fee, on or before December 1, as follows: Cities under 25,000 population, \$20; between 25,000 and 50,000, \$30; between 50,000 and 100,000, \$40; between 100,000 and 200,000, \$50; over 200,000, \$60.

SECTION 3.—The membership of any municipality shall cease upon the discontinuance of the payment of the annual membership fee.

##### Article III.—Meetings.

SECTION 1.—The annual meeting of this organization shall be held at such place as the annual convention may determine, and at such time as the executive committee may determine.

SECTION 2.—Each and every municipality holding membership shall be entitled to send its mayor and as many members of its

general council and its board of aldermen as it may desire as delegates to the annual meeting.

SECTION 3.—On the questions of electing officers and selecting place of annual meetings, each and every member shall be entitled to one vote, which shall be the majority expression of the member's delegation; on all other questions the vote of the majority of delegates present shall control. All delegates shall be entitled to participate in the discussions and debates of the meetings.

##### Article IV.—Officers.

SECTION 1.—The officers of this organization shall consist of a president, a vice-president, a secretary, a treasurer and three trustees, each of whom shall be a municipal official at the time of his election, except the secretary, and no two of whom shall be from the same State. This board of officers shall constitute the executive committee.

SECTION 2.—There shall be appointed at each annual meeting an honorary vice-president from each State represented, and such standing committees as the president or the convention shall deem necessary.

##### Article V.—Duties.

SECTION 1.—The president shall preside at all meetings of the organization and at those of the executive committee, shall have the appointment of all committees, and shall perform such other duties as are incumbent upon the office. In the absence of the president, the vice-president shall assume and perform the duties of the office.

SECTION 2.—The secretary shall keep accurate minutes of the proceedings of the organization and of the executive committee, shall have charge of the bureau of information, shall conduct all correspondence, shall issue notices of all meetings of the organization, shall collect and receipt for all fees and dues, and pay them to the treasurer quarterly, taking and keeping a receipt for same; and keep accurate account between the organization and its members, and shall receive such compensation and give such bond as the executive committee shall determine.

SECTION 3.—The treasurer shall receive from the secretary and keep all money belonging to the organization, giving his receipt therefor; shall pay all bills approved by the president; shall keep an account of the funds of the organization, and submit to it at each annual meeting a report of all receipts and disbursements during the preceding year, and shall give such bond as the executive committee may determine.

SECTION 4.—The bonds provided for in the two preceding sections shall be in some solvent security company and the premiums thereon shall be paid by the organization.

SECTION 5.—The executive committee shall meet on the morning of the first day of the annual meeting of the organization, and as often as the president may direct, and consider and report all matters referred to it by the organization.

##### Article VI.—Bureau of Information.

SECTION 1.—The organization shall establish and maintain, under the care of the secretary, a bureau of information for purposes as set forth in section 1 of article I. of this constitution.

SECTION 2.—It shall be the duty of each and every member to take such action as it may deem proper, through its mayor or its general council and board of aldermen, to have the heads of its various departments send copies of all published public reports to the bureau of information, and to have said officials extend all reasonable courtesies to said bureau in the way of furnishing special information as requested.

SECTION 3.—It shall be the privilege of each and every member, through its mayor, council or heads of various departments, to request any special information relative to municipal work from the bureau of information.

SECTION 4.—It shall be the duty of the bureau of information to comply with all reasonable requests made by members for information, and to publish all generally interesting information gathered and compiled by it.

##### Article VII.—Order of Business.

SECTION 1.—At the annual meeting of the organization the order of business shall be as follows:

1, Roll call; 2, reading of minutes of last meeting; 3, presi-



dent's address; 4, report of secretary; 5, report of treasurer; 6, report of executive committee; 7, report of other committees; 8, addresses, papers and discussions; 9, election of officers; 10, election of next meeting place.

#### Article VIII.—Amendments.

SECTION I.—The foregoing constitution may be amended at any annual meeting by a two-third vote of the members present, provided such proposed amendments shall have been submitted in writing not later than the first day of the annual meeting.

After the constitution was adopted, Mayor Johnson, of Fargo, who had been called upon to preside at the session by Mayor Black, announced that the election of officers for the ensuing year was in order. Frederick A. Walker, of Trenton, was recognized, and in a splendid speech nominated for president of the League, Mayor John MacVicar, of Des Moines, Ia. The election of Mayor MacVicar was made by acclamation with much enthusiasm. For vice-presidents, Mayor Quincy, of Boston; Mayor Collier, of Atlanta, and Councilman Walker, of Trenton, were placed in nomination; but



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Messrs. Quincy and Walker withdrew their names, and Mayor Collier was elected by acclamation. Mayor Green, of Binghamton, nominated B. F. Gilkison for secretary, and his election was also by acclamation. When Mayor Black, of Columbus, was named for treasurer there was a wild demonstration of enthusiasm, and a motion to make his election unanimous by a rising vote was enthusiastically carried. For trustees, John Warner, mayor of Peoria, Ill.; F. A. Walker, president of council of Trenton, N. J., and C. M. Leitch, president of council of Wilmington, Del., were elected. The president announced that he would appoint the honorary vice-presidents at Friday morning's session. After Detroit had been selected as the next meeting place, the session adjourned.

Thursday evening's session was very largely attended, and was devoted to the addresses of Mayor Pierce, of Marshalltown, Ia.; Mayor Jones, of Toledo; Colonel Waring, of New York, and Allan Ripley Foote, of Washington, D. C.

#### THE FOURTH DAY.

At Friday morning's session President MacVicar announced the following honorary vice-presidents:

Alabama—F. V. Evans, mayor, Birmingham.  
Colorado—T. S. McMurray, mayor, Denver.  
Connecticut—Fred'k B. Farnsworth, mayor, New Haven.  
Delaware—Henry C. McLean, mayor, Wilmington.

Florida—S. N. Bronson, mayor, Lake Maitland.  
Georgia—S. B. Price, mayor, Macon.  
Illinois—T. J. Medill, Jr., mayor, Rock Island.  
Indiana—W. M. Akin, Jr., mayor, Evansville.  
Iowa—F. G. Pierce, mayor, Marshalltown.  
Kentucky—Geo. D. Todd, mayor, Louisville.  
Maryland—W. G. Mellinger, mayor, Cumberland.  
Massachusetts—H. A. Collings, council, Holyoke.  
Michigan—Wm. C. Maybury, mayor, Detroit.  
Minnesota—Frank B. Doran, mayor, St. Paul.  
New Jersey—Welling G. Sickel, mayor, Trenton.  
New York—George E. Green, mayor, Binghamton.  
North Carolina—Silas P. Wright, mayor, Wilmington.  
North Dakota—J. A. Johnson, mayor, Fargo.  
Ohio—Samuel M. Jones, mayor, Toledo.  
Pennsylvania—Robt. J. Saltsman, mayor, Erie.  
Rhode Island—R. H. Ryder, council, Pawtucket.  
Virginia—W. R. Mayo, mayor, Norfolk.  
West Virginia—Wm. F. Hite, mayor, Huntington.

The paper of Edmund B. Weston, of Providence, and



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the address of Alexander Potter, of New York, were then listened to, and the convention came to an end.

#### VOTING BY MACHINERY.

The cumbersome Australian ballot, although accomplishing some of the purposes of aiding the independent voter, has brought with it so many discomforts to the voter and to the election boards that widespread interest is manifested in the subject of voting machines. At the first convention of mayors, held in Columbus, Ohio, September 28 to October 1, the United States Voting Machine Company exhibited their really wonderful machines. If anyone inspecting these machines was prejudiced against voting machines, his prejudice was rapidly changed into enthusiastic approval. The machines are simple, accurate, easily understood, easily operated, and fulfill every requirement of every sort of an election. It is claimed that by their use there is also a saving of expense. The machines are already legalized in the States of Michigan, Minnesota and New York. They have been examined and passed upon by some of the most eminent mechanical experts in the land, and have been in successful operation in several elections in the State of New York. We advise all municipalities to look into this subject thoroughly, as we think it eminently worthy the consideration of municipal bodies. The United States voting machines are manufactured at Jamestown, N. Y., and their advertisement appears in another column.

## PRIVATE OR MUNICIPAL OWNERSHIP—WHICH?

ADDRESS BY JOHN MACVICAR, MAYOR, DES MOINES, IA.

MR. CHAIRMAN AND GENTLEMEN—The lighting of city streets is of comparatively recent origin. Rome, the magnificent, was "imperial" only by day. Luciana says "ancient Rome never enjoyed a good name for respect of private property and the personal security of its citizens; the principal cause of disorder is to be found in the almost incomprehensible fact that the metropolis in which all the wealth, luxury and comfort of the world was concentrated was kept in perfect darkness at night. How this could have happened in such a civilized age, why the plain, simple idea of a system of public illumination was not conceived and adopted, is a mystery hard to solve. Yet excavations at Pompeii, Ostra and other well-preserved ancient cities fully confirm the fact. Not a trace of a bracket fixed to the front part of the house, or of a rope or small chain drawn across the street to support lamps or lanterns, has yet been found, and probably never will be."

We are told that Rome had 7,500 police, who kept order by day, but the fall of the mantle of darkness obliterated statuary and monument, and the streets were the resort of thieves and robbers by night. No one ventured abroad without a retinue with arms and torches. The old-time watchman, the policeman of the middle ages, was equipped with halberd and lantern, but no one yet seemed to have thought of lighting the streets generally, and thus protecting life and property against those who preferred darkness rather than light, because their deeds were evil.

While in the present age none will question the necessity and desirability of street lighting, yet it is a department of municipal service receiving much less earnest attention than it deserves. While this department has received its fair share of the benefits of recent scientific discoveries, yet few of our cities are well lighted. The average city has no settled policy for its street lighting, and apparently attempts to divide its patronage between the electric and gas companies, and uses gasoline to light the territory they cannot conveniently reach. The moon schedule is usually adopted, which frequently leaves the streets in darkness at times when light is most needed.

That method which will give the best service for the amount of money expended is the proper method to adopt, for a city is usually lighted so far as the fund available for this purpose will reach, and the rest is left in darkness. Either gas, lamps with improved burners, or electric lamps will light streets well enough if you have enough of them.

Exceedingly high towers, with clusters of electric lamps calculated to light extensive areas, have been demonstrated a failure, and are generally abandoned; as remarked by the mayor of one of our Iowa cities which has experimented with this system: "It is an excellent method of lighting the heavens, but our people are not usually traveling that way." Towers of 125 to 150 feet, supporting two or four lamps, and placed at frequent intervals, have in a few instances been successful, but in many others have been abandoned. The suspension of electric lamps at the centre of street intersections, the method most generally adopted, is perhaps somewhat desirable, because of superior radiation, but it mutilates the appearance of the streets to such an extent as to make the mast-arm much preferable. Thirty-five or 40 feet is generally considered the most effective height for arc lamps, but, like most other questions, this is open for debate, and those who have tried the different methods differ in opinion as to their desirability. Local conditions must largely govern. We find different cities suspending their lamps anywhere from 8 to 40 feet in height. Detroit and Austin, Tex., are pleased with their tower system of lighting, while Davenport and many other cities have abandoned this plan. Heavy foliage and high buildings cause dense shadows, and call for low suspension lamps. St. Louis claims good service from 30-candle-power incandescent street lamps in connection with arc lamps. A thorough method of determining the candle power and to check out-ages should always be provided.

An interesting compilation of statistics on street lighting by electricity, issued by the American Society of Municipal Im-

provement, shows, among much other information, that 171 cities in the United States contain 187 public and private electric lighting plants, and operate 30,802 2,000-candle power and 11,572 1,200-candle-power arc lamps, and 251 50-candle power, 4,718 32-candle power, and 7,026 16-candle-power incandescent lamps, lighting 4,893 miles of streets.

Of these cities operating municipal plants, Kendallville, Ind., shows the lowest price, \$30; and Tacoma, Wash., the highest, \$100 per annum for 2,000-candle-power lamps. Of those lighted by private contract, Cheyenne, Wyo., pays the highest rate, \$162; Minneapolis being next, with \$150 per lamp.

The average rate paid for 2,000-candle-power arc lamps by contract with private company, for all and every night service in twenty-nine of these cities, is \$106.85; by municipal plants in nine cities, \$66.26.

The average cost, moon schedule, by contract, is \$95.70; by municipal plant, \$56.67.

Some twenty cities use incandescent lamps in connection with arc lamps. The price of incandescent lamps seems to vary as greatly as that of arc lighting. New York, under contract for all and every night, 16-candle-power incandescent lamps, pays \$25 per year; Seattle, \$21.60; Pittsburg, Kan., \$9.60. Under municipal ownership, Jacksonville, Fla., pays \$15, and Fort Worth, Tex., \$0.27 for all-night 32-candle-power lamps.

The largest amount paid for street lighting is by New York City, which has 3,256 1,200 candle-power arc lamps, 25,450 gas and naphtha lamps, and sixty-eight 16 candle-power incandescent lamps, lighting a total of 625 miles of streets, and costing annually \$488,144. The smallest amount expended for street lighting is by Montpelier, Vt., which is lighted by one 30 candle-power incandescent lamp, costing \$18 per annum.

But fifty-three cities report having a method to determine the power of arc lamps. Only eighteen cities use iron poles, and but sixty-five use mast arms.

The most important question, and the one first to be decided is: "How should a city obtain its supply of light?" I can think of but three methods to consider: First, by contract with private companies, where competition will govern rates; second, by the regulation of rates of private companies where a reasonable return upon the investment will govern; third, by municipal ownership. Here the city's ability to manage will govern.

To illustrate the possibilities under these different methods, I will refer to the experiences of the city of Des Moines. When nearly two years ago our present administration took charge of the city's affairs we found 128 miles of its streets inadequately lighted, with 167 2,000 candle-power arc lamps, moon schedule, at \$96 each; 121 2,000 candle-power arc lamps, all night and every night, at \$126 each; 318 gas lamps of 16 candle-power, at \$18 each, and 900 gasoline lamps of 14 candle-power, at \$15 each per annum. Total expenses, including lighting of city buildings, about \$58,000 annually. Conditions are favorable to low rates for light in Des Moines, and Iowa statutes allow us to adopt either of the three methods above mentioned for obtaining our supply of light. We had four companies in operation in our city. The Gas and Electric Light Company, a branch of the gas trust, the Iowa Gasoline Light Company, a local institution; the Edison Electric Company (then owned by the General Electric Company); the Des Moines Water Power Company (Fort Wayne Electric Company, receiver). Steam coal costs in Des Moines 65 cents to \$1 per ton delivered. One plant was operating partially with water power.

Our city, spreading as it does over a large area, was not thoroughly lighted, and demands for additional lights were constantly being made, particularly from the newer portions of the city. As the amount of money then expended for lights was all that could possibly be spared for that department, it was not difficult to see that to satisfy the reasonable demands of the people, some other less expensive method of street lighting would have to be adopted. Our contracts being about to expire, bids were advertised for with the intimation that, unless a material reduction in the prices heretofore paid was made, the city would establish a municipal plant. The bids received developed no material change in the price previously paid, and showed a concert of action



which indicated that, while we had several independent lighting companies in operation, we were not receiving the benefits of natural competition. The fact that our city was without money or means to raise the money to build a plant, because of its being at the constitutional limit of indebtedness, may have satisfied the local companies that they had little to fear from municipal ownership, and, as I will proceed to show, they had reason to feel assured they could make such a showing before the courts of the cost of production as to prevent any material reduction, did we attempt municipal control of rates.

The Des Moines Water Power Company, which had been furnishing the city with arc lights at \$96 and \$126 per annum for several years, had gone into liquidation (a significant commentary upon private ownership), and was then operated by a well-known electrical manufacturing company, which held numerous mortgages against it. "Here," we thought, "will be just our opportunity. This company is losing money, and will certainly be anxious to sell to the city upon such terms as we can meet." The president and secretary of the company shortly thereafter visited our city, and a conference was had with them. They offered to sell the plant, consisting of five 125-horse-power boilers, and two 250-horse-power engines, with all the auxiliaries, such as condensers, hot and cold water pumps, injectors, etc., and seven 80-arc dynamos and three 1,300 incandescent dynamos, together with lamps and pole line for 363 arc, and about 3,000 incandescent lamps, which the company then had in operation, for the sum of \$250,000 in 6 per cent. bonds. It was noticed that there was no apparent eagerness or anxiety on the part of the company to dispose of the plant even at these figures, which may be explained by the fact that all negotiations for the purchase of this plant by the city came abruptly to an end by its sale to the General Electric Company, who had but a short time before secured the local Edison plant. An estimate by one of the city's engineers placed the value of this plant at \$80,000, yet the actual investment as claimed by this company was in the neighborhood of \$250,000.

This plant is presumed to have been organized in a manner which, in the early days of electric lighting, was quite common. A well-known engineer thus explains the plan:

"In the earlier days of arc lighting, many companies were started by parent manufacturing companies, who required the local corporations to pay them a bonus in stock, amounting in some instances to 49 per cent. of the total capital stock of the local organization; the prices paid for electrical apparatus (dynamos and lamps only) was as high as \$250 per lamp capacity, and the local company was required to agree for a term of years, and sometimes for all time, not to purchase machinery or appliances for lighting from any other than the parent company.

"In consideration of this, the parent concern agreed, in order to protect the local company from opposition within its territory, to not sell apparatus to anyone therein, and to prevent, by every possible means, a company obtaining franchise rights, or the city itself from establishing a plant.

"The greed of the parent company to get all the money possible from the local company for electrical machinery and their advice, and the combined lack of engineering knowledge of both concerns, caused the local company to buy cheap and inadequate steam machinery, which in a short time was not fit to adorn a respectable scrap heap. Additions to the plant were soon demanded by the growth of the business; then the building, boiler plant, etc., were added to and patched, which again decreased the original low efficiency of the plant. Upon all this deplorable investment, the contract with the city for street illumination was expected to pay a dividend."

It is not difficult to see that under such conditions it was impossible to secure a reasonable contract from such private company, and difficult indeed to regulate rates to a reasonable figure in the face of such a showing of cost.

We had some experience a short time before in an attempt to regulate the rates to be charged for gas. We were paying \$1.75 per thousand for gas for illuminating, and \$24 per annum for street lamps. We thought \$1 would be a reasonable rate for gas.

After a warm contest lasting about six months, during which time various suits were brought in the district and United States courts, a compromise was effected at \$1.30 per thousand for illuminating or fuel gas, and \$17 to \$18 per year for street lamps, with an agreement for a gradual reduction, so that at the end of twelve years we will have dollar gas. The immediate cause of this compromise was the exposure on the part of a local newspaper of an attempt made by the local manager of a lighting plant to bribe its editor into silence by the payment of \$1,000. The money was produced before a meeting of our council, and the payment of it confessed by the instrument used. It is doubtful if a showing could have been made by the city against the evidence produced by the gas company which would have established a rate as low as the compromise rate, despite the fact that numerous European cities secure gas at the rate of 60 cents per thousand and less, and some American cities at 75 cents and \$1.

These experiences caused us to hesitate to look for relief in municipal control. Believing that our only hope for reduced rates for light lay in municipal ownership, our city council rejected all bids, and under their direction I began an investigation of the question: "Can our municipality acquire and operate an electric-lighting plant which will give our city as good service as less cost than we now get by contract with private companies?"

When I undertook this task, I was about as well informed upon the subject as was the farmer's good wife who asked her husband to bring home some electric plants, that they might, by raising their own lights, save kerosene. In my verdancy I went for information to those whom I supposed knew the most—to the General Electric Company, the Brush Electric Company, the Westinghouse Electric Company, the Edison Electric Company, the Ft. Wayne Electric Company, as well as to electrical engineers and contractors. I was aware that two of these companies were interested in our local plants, but expected to find some of them looking for a market for their machinery. I was forewarned by a reputable engineer that there were two sources from which I would be likely to acquire information of questionable value:

"First, from manufacturers of appliances, who either desired to sell machinery, or else had friends in the business to protect, and in either case are likely to give biased information; second, from parties already operating plants. It is frequently the case that the conditions are so different that their experience is of little value, and sometimes actually misleading."

This proved wise information, and had the evidence I accumulated been submitted to an unbiased tribunal, the decision must have been that we could not hope to improve our condition as to street lighting by municipal ownership or by municipal control.

From but one electrical manufacturing company did I get any encouragement. The General Electric Company advanced considerable information, which, they assured me, was from an entirely disinterested standpoint. Among other matter they sent me a copy of "Francisco's Fallacies of Municipal Ownership" and "Foster's Public Lighting by Municipal Ownership." It estimated the cost of erecting a 500 2,000-candle-power arc-lighting plant at not less than \$250,000, and might reach \$350,000, and that we could not hope to operate it at an expense less than we were then paying under contract, and advised us to continue to patronize the existing local companies. The Brush Company advised me that there was too much politics connected with operating municipal plants to allow of success, an exceedingly unkind insinuation.

However, we received some encouragement from several engineers and contractors, as well as from the officials of the cities of Rockford and Springfield, Ill., who quoted from their experiences.

Despite the discouraging information received, we invested in the services of a reputable engineer, who submitted estimates and specifications for a high-grade modern plant, with a capacity of 600 2,000-candle-power arc, and 1,200 incandescent lamps. The plant, when completed, was to operate 500 arc lamps and 1,200 incandescent lamps.

When the bids were opened we were agreeably surprised to

find that the lowest received came within the estimates of the engineer, and were as follows:

Plant, complete (city to furnish site), \$105,000, with an agreement to operate the same for a period of two, five or fifteen years, lamps to burn all and every night, for \$65 per annum, and for each additional lamp thereafter, \$60 per annum.

The city having no money, the contractors offered the following terms: The city to pledge \$55,000 per annum from its lighting fund for maintaining and operating this plant for a term of six years and four months. At the end of this period, the contractors would deliver the plant to the city for the nominal consideration of \$1. They also agreed to enter into contract to operate it thereafter for fifteen years, all and every night, at not to exceed \$65 per lamp. A second proposition, which was considered the better and accepted, was that the contractors erect the plant and operate the same for a term of two years at the rates above named, the city to levy a 2-mill tax for which the law provides, to operate the plant for one year, and to apply from its general fund the amount usually appropriated for street lighting purposes for two years. These two funds will be sufficient to pay for the purchase and operation of the plant. The contractors agreed to continue to operate the plant thereafter for a term of five or fifteen years at not to exceed the above rates, and offered to substitute for arc lamps, wherever the council desired, their horse-power capacity in incandescent lamps.

During the period leading to entering into this contract the local lighting companies and their friends were not idle. Before the contract was made it was necessary to submit to the people at an election the question of whether or not the council should be authorized to acquire a municipal lighting plant. These local companies made a vigorous campaign to defeat the question, money and political influence being freely used. The result was a victory for municipal ownership by a vote of nearly three to one, every precinct voting favorably, and in one suburban precinct only one vote was cast against the question. This result, instructing for a large investment by the city at a time of the most severe business depression ever known, speaks volumes for the sentiment of the people of an intelligent community upon the question of municipal ownership.

Our plant is not yet built. When about to enter into contract the city was enjoined on petition of a "prominent" taxpayer, under direction and advice of the attorneys for the local companies, the plea being that the city was accumulating further indebtedness. The preliminary suit was decided in favor of the city. The contract has been entered into, and notice has been received that further suits will be brought immediately.

Preliminary to a siege that may be a protracted one, our city council recently cut the rates for arc lamps to \$65 and \$75. Though these rates are \$10 per annum more than the rates assured under municipal ownership, the local companies say they will fight them in the courts; that they are lower than such service can be furnished.

With the knowledge of this condition of things, is it a wonder that our people are interested in municipal ownership of these public necessities?

We have since 1892 been engaged in a contest to control the rates charged by our water company. At that time the company was bonded for \$950,000 at 6 per cent, and \$500,000 in stock issued on a plant worth about \$600,000. The city, wishing to acquire the plant, was offered the same for about \$2,500,000. The president, whose duties were nominal, at that time drew a salary of \$7,000 yearly, and the secretary \$5,000. By regulation we reduced the company's rates for public service about 40 per cent., and for private consumers about 33 1-3 per cent. Now, after more than four years' contest, the president neither earns nor draws a salary, and the secretary but \$2,000 per annum. The bonds, except a small portion of first mortgage bonds, have been scaled to 4 per cent., and the city refused to purchase the plant for \$925,000, but instead has levied a tax to accumulate a fund with which to build or purchase the present plant at reasonable figures.

Yet our people are a law abiding, property rights respecting people. We have simply come to realize that we are being im-

posed upon; that we are being fleeced by those who control our municipal franchises, and we propose to apply the only remedy at hand—municipal ownership.

Our city council sat as a board of equalization two months ago, and heard the complaints of these corporations to the assessments levied on their property. Our water company, bonded and stocked for \$1,500,000, and asking the city to pay for it \$925,000, having refused the city's offer of \$800,000, objected to an assessment of \$320,000 (it is our custom to assess personal property at 40 per cent. of its real value), and asked that it be reduced to the former assessment, namely, \$100,000.

Our gas company, which testified before the court that their plant was worth about \$500,000, objected to an assessment of \$160,000, and asked that it be reduced to \$75,000. Upon being refused they appealed for a reduction, and the case will be heard during our present term of court.

Our street railway company, estimated to be worth \$600,000, bonded for \$1,250,000 6 per cent. bonds, appealed for a reduction from \$150,000 to \$50,000, its former assessment. Upon being refused it discontinued the sale of six tickets for 25 cents, and advanced the rate of fare to 5 cents.

Our people realize that in being required to pay 6 per cent. on \$1,250,000 bonds upon a street-car plant worth \$600,000, which, if our municipality had issued the bonds would be at the rate of 4 per cent., they are paying certainly over \$50,000 annually more than a reasonable rate for street-car service. They know that while electrical machinery to-day costs one-fourth or one-fifth of what it cost six or seven years ago, and that the increased knowledge of electric machinery has caused large economy in operation, yet our lights do not decrease in price proportionately.

They know that while Springfield, Ill., pays \$60, and Rockford \$52 for arc lights, and contractors stand ready to furnish our city with lights for \$65, for which we have for years paid \$126, that these companies themselves refuse to furnish lights at reasonable rates, and endeavor, by appealing to the courts, to prevent the city availing itself of the opportunity at hand for obtaining such rates.

While I should recommend a municipal electric plant as the most feasible plan to adopt for lighting the streets of our cities, it is not because I am convinced that electric light can be produced cheaper than gas; in fact, were I looking for a profitable investment for a municipality, I would select a gas plant to supply light for its streets, and light and fuel for its citizens.

From the advance sheets of a report of James B. Tanev, United States Consul to Belfast, we learn that the city recently reduced its price on gas to consumers from 66 cents to 60 cents per 1,000 cubic feet, believing that the net profit of \$327,892.10 received from the sale of this product last year indicated that the rate was unreasonably high.

A short time ago three European cities which sell gas at from 60 to 65 cents per 1,000 showed an annual net profit as follows:

Birmingham.....	\$136,096.53
Manchester.....	148,861.73
Glasgow.....	143,561.75

At that time Chicago was paying \$1.25 for illuminating, and \$1 for fuel gas. A number of citizens undertook to investigate the cost of producing gas, and found that it could be manufactured in Chicago for 30 cents per 1,000 for illuminating, and 20 cents for fuel gas. One reason given for the high rates in Chicago was the corporation's excessive capitalization. The stock certificates and bonds of the company amounted to the enormous sum of \$44,082,000 (I understand it is much greater now), while the estimated cost of producing a plant sufficient to supply Chicago with the gas she consumes is \$9,000,000.

But, while we now generally concede the justice of municipal ownership of water works, and are about ready to endorse municipal street lighting, we hesitate at going further and declaring for city ownership of such natural monopolies as gas and street railways. However, we are now rapidly coming to believe in the soundness of this principle. Our newspapers and periodicals are teeming with intelligent information on the subject of municipal ownership. No sentiment should be allowed to stand in the way of utilizing these monopolies for the benefit



of the whole people, even though it be at the expense of private gain.

The private lighting companies, in their efforts to retain a profitable contract, systematically endeavor to demonstrate that they are furnishing light as cheaply as it is possible to furnish it. They ridicule the estimates of competent engineers and criticise the showing of municipal companies. They argue the impossibility of the city economically or honestly operating a plant because of the element of politics that enters into its management, and the manufacturers of apparatus will frequently substantiate their statements. These statements are plausible to the verge of being convincing, and cause one to hesitate before investing in a municipal plant. But a careful inquiry into the condition environing these institutions shows watered stock, unproductive investments and inefficiency of apparatus, which will fully explain the high cost of production. Compare such a plant with the results obtained from improved apparatus, judicious selection of machinery which will insure high economy of operation, that a properly designed plant with modern appliances can produce, and a very different result will be had.

#### STREET CLEANING.

ADDRESS BY COL. GEORGE E. WARING, JR., COMMISSIONER OF STREET CLEANING, NEW YORK.

LADIES AND GENTLEMEN—I was selected for the position of commissioner of street cleaning of New York a few days before Colonel Strong took the chair as mayor, with the understanding that I should spend two weeks as an assistant with the previous commissioner in learning my trade. I knew New York pretty well before I went there for this purpose, but had never before given my attention in any special way to the condition of its streets, except I knew (as all knew who used them), to use a French expression, they "left much to be desired." I remember early in January driving down through Elizabeth street, and before we had gone two blocks, my wife, who accompanied me, implored me to throw up the situation and go back into the country and lead a peaceful life. "Why," she says, "you never can clean Elizabeth street!" I confess it did look rather doubtful, and as I went down there during the two weeks I found it very much worse than I had any idea of. In 1892 a law had been passed as the result of a careful examination of the subject made by the Citizens' Committee, and it had been put through the Legislature largely by the efforts and energy of a lady who went up there and worked like a Trojan, and got the thing through and signed by the Governor; and she had the satisfaction of seeing the new system adopted, and hoped that the day of regeneration had come at last, as all New York did. To their great astonishment and disgust, however, they found absolutely no improvement. There was a change of method, but a continuance of inefficiency. That condition went on through 1892 and 1893, and in 1894 was still growing worse, perhaps, than better. The change that was made by the law was that the force of the department was made a permanent force, and it was made a uniformed force. It was regularly organized, with its commissioner, superintendent, assistant superintendent, district superintendent and foremen. Every man had a regular district to keep clean, and he was under the direction of a foreman, who controlled a certain number of routes, constituting a section. He was under the direction of a district superintendent, who had charge of a certain number of sections. But the thing didn't work. The system was there, the operation failed. When I began, in my first conversation with Mayor Strong he asked me if I would accept the place, and I said: "Yes, if I can have my own way. You can remove me under the law at any time you choose, but you can't interfere with me. If I am not satisfactory to you, send me away; but while I am there leave me alone." He said: "That's all right." But it took two hours' talk for him to convince me that he really meant what he said, that I could have my own way. I did not finally believe that; and I am glad to say, for his credit—and, by the way, he recently told me to say that, as an Ohio man, he was especially sorry not to

be here now (applause)—that he has let me have my own way from that day to this. Let me first tell you what the condition of the streets was. In the first place, in the down-town district almost entirely, and in the east and west streets, near the rivers, it was a vast and dirty storehouse for unused trucks. In Mr. Coleman's time, in 1882, it was estimated that there were about 50,000 trucks in the streets, having no other stabling place. The board of health, in 1894, had a calculation made, by which they estimated the number of these trucks at about 65,000. These trucks owned the streets. And there were other difficulties—other serious objections that were made manifest when we came to look into the question; they not only restricted traffic and made thorough street cleaning practically impossible, but these trucks were dens of thieves, resorted to by all manner of vile persons, and used for all manner of vile purposes. I remember once at a hearing in the City Hall on a bill passed to give the truckmen the right to return their trucks to the streets, after being removed, there was a very heated discussion, and at the end of two hours' talk a little woman stood in the middle of the room—and as she stood there I thought she grew about 6 feet high. She turned around and surveyed the audience, and she said to the mayor: "Last summer I had occasion, at 10 o'clock one night, to come from the Bowery through to the foot of Grand street. When I got to the ferry I said: 'I don't have to die to go to hell. I have been there.'" I think that finally determined Mayor Strong to veto the bill that had been sent down for his consideration. So far as I could learn, there was an attempt to clean all of the city; that is to say, the force provided for by the bill were all regularly appointed, but somehow the work was not done. I never knew exactly or never knew so clearly why it was not done as I did two or three weeks ago when I was talking to one of my stable foremen about the conditions that existed before the change in the management of the department. He said there was one man sent to him from down town—from the City Hall—with instructions to have him put on the floor. Now, a man on the floor has what we call a "soft snap." He brushes away cobwebs, and cleans up generally; doesn't do very much; but still has to do something. After he had been there a day or two the foreman said to him: "I want you to go to work." He said: "I didn't come here to work." So the foreman sent him down town to be dismissed, and the next day he came back with orders that he was to stay on the floor. That is only one indication of what existed at that time throughout the whole department. Men were not sent on to the streets to clean streets; they were put on a broom with a view to what service they might render in another direction. I went out there to do two things. The first was to get rid of the incompetents, the laggards, the drunkards and the blackguards. There were a great many of them. And the next was to clear the trucks out of the streets. There was ample law for it, but it had been the idea that it was impossible to carry out that law because New York was so peculiarly constructed, having no alleys and no means of access to the back of the lots; so they thought the trucks must stay on the streets.

We began almost immediately with the trucks by organizing gangs of men—officers and men. Men would go out and yank up a truck wherever they found one, and send it to the pounds. There was a tremendous outcry against it, and a determination that it should not be carried on, and the thing became exciting, and to the younger men who had charge of it, entertaining. In fact, I found after a while I had to lay a repressing hand upon some of them. They took the same view of a truck hunt as they would of a coon hunt, and used to get broken heads and black eyes and have serious trouble at times. The result was that before six weeks had passed the "impossible" had been done, and the trucks had all left the streets of the city of New York, and none is to be seen there now, with the exception of those along the docks, which are not under my control, but under the department of docks, but these are not in very large numbers. You may every now and then see two or three trucks standing as if neglected; but you will please remember in such cases they are standing before repair shops. Each repair shop is allowed to keep one or two, and sometimes three, in extreme cases; but never

more, and they are never to be there over Sunday; and they never keep them there very long. They are closely watched. That was the first important step. It got this obstruction out of the way. We found that when that obstruction was removed that our department was the object of sincere gratitude from all the poor people of the city. Our popularity with that class has been greater than with any other, and largely for the reason that we took away this nuisance from the front of their houses, and opened the streets for their proper occupation.

I found, of course, that the chief difficulty was not with the men themselves, though many of them were bad enough, but with those who had been put over them to make them work—those who had somewhat high salaries, and therefore had been the objects of stronger influence. I had to get rid of a great many of these, more than half of them. I put in their places the most active, intelligent, zealous young fellows that I could find, very largely graduates of technical schools, who had graduated as engineers, and were anxious to learn more about the management of men. I found that I could get all I wanted of this class of employees, and did draw from a number of schools in different parts of the country, and after a while got the working force in very good condition. I had got rid of the inefficient among the old men, and in their stead a bright sample of young men that have worked up to to-day, and are doing very well.

Next came the question of permanency of employment for acceptable men. I gave out in March an order to the effect that every man's position depended entirely upon himself. If he was sober, industrious and attended to his work, treated citizens civilly, and did what he knew how to do, I gave him to understand that there was no power in the city of New York that could get him out of his place as long as I remained in mine. (Applause.) And on the other hand, that those who were not of that class, those who were inefficient, or objectionable otherwise, were just as sure to go—or I went.

It was curious to see the effect this produced in their minds. If it had been expressed in their own vernacular they would have said: "What is he giving us now?" They could not believe any such strange new idea as that for a number of days; but at last, when they found I meant what I said, and that they could keep their places as long as I stayed there, and have a life position if they did their work properly, they took on a new life, they turned their eyes to the front, and went to work; and from that day to this, of course with a good deal of discipline, and some changes of personnel, they have grown better day by day, until I don't hesitate to say that I have the honor to command about 2,700 workmen, who, as a body, cannot be beat by any large number of workmen in the United States.

The law required that the men and officers should be uniformed in order that they might be distinguished. Under the old regime the old men wore a sort of dingy brown jumper and overalls, and a little cap with brass letters, "D. C. S." on the front.

The foremen were provided with a uniform very much like that of a policeman, which they wore or not, as they pleased—generally wore the vest with brass buttons and their shield on it, and an overcoat, if the weather required; and an old black hat or cap, or whatever suited them, on their heads. I saw that that would not do. Effect must be given to the uniform in order to secure the purpose for which it was intended. I bothered my head very much over what should be selected. I knew red would be rather gay for a workaday city like New York. I had seen blue after a little wear fading, and no parts of the uniform fading alike; no two sleeves perhaps fading to the same degree.

I didn't know what to do. At last I suggested to my wife I would try white. My wife, who was a frank person, said that I was a fool! (Laughter.) The thing was discussed, and we had many talks among those whom I knew, and among those with whom I was associated officially. It was some weeks before there was more than one of the people in New York who agreed with me, and that was myself. I remember the chief engineer of the dock department said to me, when I suggested white: "Thunder! put white clothes on a man to sweep a dirty street!"

I said: "No, put white clothes on a man to keep a clean street clean." Finally, seeing that I had to do it myself, I did it in as unobtrusive a way as possible. I tried them in one district first; and I went up the first morning to see how they looked. When I saw the men working in the sunshine with new white clothes, I thought it went pretty well, and immediately put the whole force into uniforms. First, we had caps, but afterward found that cork helmets were more comfortable. Some imagined that the uniform would be so expensive that the men could not afford it. Well, the men were paid at that time \$60 per month for eight hours' work a day, and their uniforms cost, for a helmet, two sets of clothes, five buttons and a leather belt, with a middle plate, \$4.63. Then there was an objection made that it would be such a trial to these men's wives to wash their clothes; but pretty soon the wives began to say they liked it. One woman said: "Now, my husband comes home like a gentleman. He does not come in his working clothes into the house." They are not allowed to wear their uniforms off duty.

I had a mild sort of struggle even with the mayor. I didn't talk with him about it. I didn't dare to; but I asked his secretary what he thought of it. He said when he heard of it he threw up his hands and said: "He is going to bring ridicule on the whole administration." I had a friend who took a very serious view of it, who held the position of Senator at Albany, and he to this day threatens to introduce a bill requiring me to dress in white. He said that I had degraded the workingman. I think if I had had to wear this myself I should have worn it with good effect.

We never saw the good results that the uniform and discipline have helped to secure until we had our first parade a year ago last May, and turned out about 1,400 sweepers and 600 drivers, the latter of whom wear a brown uniform because of the character of their work. I headed the column at the corner at Central Park, and we came down Fifth avenue, the various divisions filing out from the side streets as we formed. As we started in on our march there was a decided ominous hissing on both sides. As we went on a little way and one section after another filed out and took their places in line, with twenty-three bands of music making things merry, the hissing stopped and then turned to applause. By the time we had gone a mile down the avenue "White Wings" had taken the town, and they knew it, and felt that they were the pets of the day. They think they are yet; and it has not done a bit of harm. That idea of putting them into a coherent body, drilling them thoroughly and making them feel that they are men earning their high pay, and that everybody has respect for them, has had wonderful effect, not only on their work, but I think on their private character also.

One of the rules that was made in reference to the men was, that no man should go into a liquor saloon in uniform or during working hours. (Applause.) I was told recently by a gentleman who owns a block on East River, near one of our dumps, where 150 laborers go five or six times a day, that before I "ruined" him he had four liquor saloons rented there at \$1,100 each; but now three of them are closed and the other paid only \$300 rent.

The same improvement exists with the men. We rarely have to discipline men; and if it is done, it is very short and sharp; the first time, a fine of three days' pay; the next time, his head goes off.

I have not yet told you what the condition of the streets was. Nominally, it was the duty of each of the sweepers to go through his route, which was about one-third of a mile on an average, more or less, according to the amount of traffic and population. He must go through the whole of it and sweep it thoroughly once a day. It was obvious that some streets were not swept once a month—a mighty few of them swept once a week. The men would stand around talking politics or dawdling, with plenty of idle time generally. The streets along the west side down town were thick with a greasy looking mud, and piled with garbage and leaves; sometimes gathered together in heaps and sometimes strewn over the street; and in the tenement-house district filled with all manner of offscourings from that dense



and ignorant population; and only the main thoroughfares and the better residence streets were passable and free from garbage. Only in the latter case was there anything like cleanly conditions. Those of you who have been to New York within the last two years know that in the part of the city which you go that condition has entirely ceased. There are very few parts paid for by private subscription; and there is not a foot of any street that is not thoroughly swept throughout once a day, and a great deal of the time twice a day. A very large number of them are swept from three to five times a day. It is estimated that our daily sweeping, counting 1 mile swept twice as 2 miles, is a total of 924 miles, which would reach from New York to beyond Chicago. (Applause.)

The stock and plant of the old establishment was in a very defective condition. For instance, in the principal stable there was not one extra set of harness. If a trace broke it took a saddler and a man and a horse and a cart to mend it, and workmen laid idle until the repairs were done. Harness was mended on the streets with bits of wire and string. The carts were in bad order, and the whole thing was, to use an expression that may not be familiar to you, bum. Of course, it took money to replace this plant. We had to buy a great many horses, and had to buy a great many carts and repair a great many more; but we found it was economical to keep the equipment in repair, and in the matter of harness to have an entire duplicate set of harness for the whole department, so that now our harness or horses or carts will bear most critical examination. And there is hardly a case where anyone will suggest an improvement. Of course, they will show the soiling that carts used for such purposes must show, but they are washed thoroughly every night, and they get through the next day quite nicely.

There were used under the old arrangement some fifty rotary sweeping machines, which sent clouds of dust against the citizens, and houses, and on sidewalks, and made the streets almost impassable at night when they were being used. We have by a very careful examination and calculation of the cost—in the first place it is not possible to keep the streets so clean by machine sweeping as by hand sweeping—found that machine sweeping costs more. So every one of our machines was stored away for some future commissioner to sell, and the whole work for about two years has been done entirely by hand labor to our satisfaction, and I think to the satisfaction of the people.

I don't suppose that you know how the press have been treating the subject. It is the canonical thing now to say: "Oh, yes, Waring keeps the streets clean; but he spends three times as much money as we did. If we had had half as much money we could have kept them clean."

My predecessor spent for his street cleaning accounts and disposal accounts \$2,366,000. I spend \$2,700,000, or something like that; so that I have an increase of about \$400,000. Fully half of that was spent for improvement and renewal of plant, and the rest of it has been for increasing the force; and the result was not due to money spent, but to the fact that the men were put to work, and worked thoroughly well.

I should be very glad, if it were in the morning, to talk to you for two or three hours about the details of the work. There is a great deal that is interesting. I will only run over very hurriedly the difference between what used to be done and what is done now.

Under the old arrangement the sweepers swept everything in the street into piles at the gutter at short distances apart, and these piles lay there until the carts picked them up in their tours. Meantime the particles of debris were dragged about by passing horses and vehicles, and dirt and paper would be scattered about, until such time as the cart would come around; and they were then put into the carts with a shovel, the wind blowing the fine dust about meanwhile, and they had to do a great deal of secondary sweeping. Now every sweeper has a bag, supported with open mouth, on a little light two-wheeled truck or carrier, which a man can handle, and upon which he carries his tools. This is always near him, and he can readily and quickly convey into its open mouth the piles of dirt, and in this way very little of it gets away. As soon as the bag is full, it is detached from

the truck and placed on the edge of the sidewalk, tied, and from there thrown into the cart, and only opened when it gets to the dump.

Again, under the old arrangement, everything was put into the same bag, garbage and all, from an envelope to discarded bedding. Now, we collect everything into three classes; first, garbage, which is free from anything like ashes or rubbish or anything of that kind, is set by itself about half an hour before the garbage cart is scheduled to arrive on its early morning round; that is taken to the dump, where it is delivered to a contractor, who takes it to the works at Barren Island, and reduced. It is first cooked by steam, then the grease extracted, and then the remaining material or solids dried and converted into fertilizer, all with profit to the contractor. Ashes are put into cans by themselves, and we are now instituting a system that will soon become generally used and which I will describe. There is in each house a can raised on a tripod frame, so that its bottom is about 8 inches above ground. The bottom is constructed with two lids which are made to unlock, so that they drop out, with a cover over the top. That stands through the day closed. The ashes and floor sweepings, without paper, are thrown into the can. When the department man comes along he brings a bag with him, and first closes the cover to prevent dust arising from the ashes, and then passes the bag under the can. The lower lids are dropped, and the contents of the can pass into the bag, which is tied and taken away, and sent out with the street sweepers. The can is placed in position for future use. I have explained the treatment of garbage and ashes. There remains paper and rubbish to explain. These are no longer permitted to mix with other things. It has taken quite a while to educate people to give the articles a proper separation. But we have at length succeeded. This paper and rubbish is taken up by very large carts drawn by very much more active horses than are used for the ash carts, and taken to the "picking yards." Only one of these is now in use. I might say that paper cannot be put into any vessel loose, unless that vessel is to be taken away by the cart. If you have a barrel to get rid of you can fill it with paper; but unless you have a vessel or something of that sort, the paper is to be tied in bundles; and it is interesting to see how early people in New York learned that they can tie paper into bundles because they are asked to do it. This being done, and the carts loaded, you cannot imagine what a miscellaneous collection their burden is: Paper racks, carpets, porcelain, sofas, chairs, books, newspapers, pictures, advertisements, all sorts of things! They are taken to a yard where they are thrown into a bed upon which a moving belt rises, 4 feet wide, which moves for 50 feet horizontally with its burden between two rows of men, whose duty it is to sort out each one the kind of thing he is after. The first man takes manilla paper; the next man takes clean newspaper; the next man takes ordinary rough paper. Then it goes to the selection of different kinds of carpets and rags; and by the time a portion of the belt has reached, with its burden, the end of this 50 feet, not more than 10 per cent. of the original burden is left. The residue passes up an incline into a furnace, where it is burned up and produces the fire that is needed to move the belt. The only result that I am able to give you now of this handling of material is that the contractor—or, rather, the man employed to organize the work—has recently taken that yard off my hands at a very good price. He has offered \$240,000 a year for the privilege. I can get more than that. Formerly everything that was collected went to sea. They went 5 miles outside of the Sandy Hook Lightship, and emptied on the ebb tide. That would be the final disposition. It became known years ago that the final disposition was along the bathing beach along the New Jersey coast. It was largely to avoid the outcry against the serious nuisance of garbage being distributed there on account of it seriously injuring the bathing resorts that the changes I have described have taken place. Now paper and rubbish is disposed of as I have told you. Ashes will be taken to the flooded land, near the city, at Riker's Island, in the East River, and will be used as filling material, making land at a cost of \$500 an acre that will be worth for the city's purposes \$3,000 to

\$5,000 an acre. For the transportation of garbage we now pay from \$3,000 to \$5,000 a year; but the contractor confesses that when the five years are up he will have to pay us something instead of our paying him. That is a very brief statement of what has taken a good while to work out.

I want to say one word about the basic principle of the whole thing; that is, that it would have been absolutely impossible for any material part of this improvement to have been effected by a man who had votes in his eye. It is only by an absolute divorcing of the work from all control of politics that it is possible to do what has been done. (Applause.) I was told by politicians when I came, when they saw what course I was going to pursue, that I would last about a week, that they would not stand that sort of a thing at all. The men who talked that way about it then have come now in the most friendly way to say that it has been a very good thing, and I have worked out just right; and if they go to work to have a drunkard taken back, I find they are satisfied when I ask them if they were in my place and I in theirs whether they would do what they asked me to do, and they say no.

I want to say one word for poor old Tammany Hall. I will confess I have thought quite ill of Tammany. I got my impressions for a long time from the best papers which liked Tammany Hall the least. I supposed it was my duty to turn out the whole gang, and I don't know but what I might have done it if New York had not been struck just at that time by a most severe snow-storm. I discovered whatever my superintendent might be he would have to be a man who should know how to handle snow. I concluded not to swap horses until I had crossed the stream. However, I told him of the new ideas with which I had been put in office. He caught on immediately, and said: "Whenever you want my resignation you shall have it." I said: "Don't be so fast." I said: "You are a Tammany man, are you—a Tammany captain in your district?" He said: "Do you know what a Tammany man is?" I said: "What is your definition?" He said: "It is a man that votes for his job." There is a good deal in that. He said: "I have been a good Tammany man always, and had to pay my dues, and didn't like it, but I am a Waring man now."

I suppose he saw a look of satisfaction on my face, and he said: "Don't misunderstand me. If Tammany comes in again, I shall be a Tammany man." I hope he will stay there as long as I do, no matter what his politics are. He obeys the rule, as everybody else does, of abstaining from all political activity. The only thing a man can do and not get dismissed is to register and vote when election day comes—he cannot go to a political meeting or contribute to a political cause. That was considered quite a hardship; but I find the men are mighty glad of it. I once saw an order signed by one of my predecessors, practically ordering every driver and sweeper to pay a percentage of their wages to the chief clerk to be used for political purposes. Now, I have found this: I have been in office pretty nearly three years. I have been first abused and then pleaded with, and now, sometimes, argued with by politicians on both sides—by the Tammany men and by the Reformers—and I tell you as something I don't want to send back to New York, that I would not give a snap for the difference between them.

In speaking about the condition of the city, I am making no criticism of Tammany Hall. I am criticising only politics, because I feel perfectly confident if the city had been ruled, as Philadelphia is, by Republicans, it would have been ruled just as bad as it was. (Applause.)

### A POWERFUL AGENCY FOR GOOD.

SACRAMENTO, Cal., September 9, 1897.

I enclose post-office order for \$3 for subscription from January, 1897, to January, 1898. I believe that CITY GOVERNMENT is doing a great deal of good, more so than anything that has ever been published for municipal governments.

C. H. HUBBARD, Mayor.

### UNIFORMITY OF LAWS PERTAINING TO MUNICIPALITIES.

ADDRESS BY J. A. JOHNSON, MAYOR, FARGO, N. D.

MR. PRESIDENT AND GENTLEMEN OF THE CONVENTION—The subject assigned to me, "Uniformity of State Laws Pertaining to Municipal Government," is one that I can say with truth should have been assigned to some one with more experience in municipal affairs than I have; some one from some large city where the opportunity for observation is much greater than in a frontier town of 15,000, like Fargo. I tried to get the committee in charge of the arrangements of this convention to let me off, warning them at the time that I could not do justice to the subject, but they would not excuse me, so you see that whatever criticism you may have of an unfavorable nature as to anything I may have to say, I can fall back on Mayor Black and Secretary Gonden, and say: "I told you so."

I don't know as this great convention, representing as it does the executive and legislative branches of the leading cities in the United States, cares to have even a suggestion from me, but if you will not take offense, I would suggest that uniformity of laws pertaining to municipalities and municipal government can be obtained in only one way, and in my opinion it is a very easy way. If this convention will appoint a committee from different States they can probably agree upon all the leading subjects, which we are all interested in, and if you will pardon me I will mention some of them; such as police powers of cities, the suppression of gambling in its different forms, the suppression of the social evil, or, if it is found that it cannot be suppressed, the controlling of it in such a way as to make the evil at its minimum; the reformation of persons arrested and convicted of offences by our city courts, and sentenced to houses of correction, work houses and houses of detention; the paving and otherwise improving streets, garbage and street cleaning; the ownership by cities of lighting and water-works plants, the granting of franchises of various kinds, and the revenues to be derived from the same.

To my mind these, and such other subjects as the committee could consider, would be productive of much good. On a small scale we tried this plan in North Dakota last year, with excellent results. The representatives of the leading towns met and exchanged views as to what each wanted, and the result was we appointed committees to draw up laws on the line agreed upon, appointed a committee to take them to our Legislature, and we found no difficulty in having them passed and approved, and the results have already been beneficial. To my mind there is no greater subject, or one of more vital importance to the American people of to-day, than municipal government, and one of the best ways to secure the best results would be to have uniform laws in all the States. There are a great many matters that we can all agree upon, that New York, Chicago and other large cities need as badly as places like Fargo and cities between those in importance.

What all cities need are laws that will make it impossible to form rings and combinations to control them. These rings and combinations always breed corruption, and one of the best safeguards against these would be the uniformity of laws rigidly enforced. No State should be permitted to enact any special laws pertaining to the government of municipalities; all should be general laws; applicable to all cities. The mere fact that, if you please, Chicago would like to have some law passed that places like Peoria might not need, should not prevent Chicago from having it, and Peoria could take advantage of it at any time it might see fit to do so. Peoria should not prevent Chicago from having a law so long as it might have the same law, if it so desired, or at any time found that it needed it.

Hours might be spent in discussing this very important subject, but I am aware that I am talking to men who have far more experience in this matter than I have had, men who are experts in municipal laws and municipal government, while I am simply on the threshold, never having had the opportunity that most of those within sound of my voice have had, and the only excuse I can make for taking up your time you must charge to Mayor Black and Secretary Gonden.



## A MUNICIPAL WATER AND LIGHT PLANT.

ADDRESS BY F. G. PIERCE, MAYOR, MARSHALLTOWN, IA.

MR. PRESIDENT AND GENTLEMEN—The question of municipal ownership of public franchises has become the most important factor in the municipal development of the present time. Broadly stated, any franchise the value of which depends directly on the people, and on the energy and push of a municipality, is a quasi-public institution in any case, and in all cases the people who make the franchise valuable should receive a share of the benefits and the municipality in which the institution is located should receive an adequate share of the profits. This has become a well-established rule, but just how far such participation in the business risk and subsequent profits should go is not so clearly settled. Water, gas, electricity, all, in so far as the public is concerned, is invariably in the form of a monopoly. The very nature of the case makes this a necessity, and if there is to be a monopoly in these lines is it not eminently fair and just that the people should share in the profits?

My remarks will, I trust, be of interest to every city official, and especially to those cities that are already fortunate enough to own a water-works plant. In order that the subject may be fairly before you, I will say that the municipal water and light plant of which I will try to inform you is owned and operated by a small city of 11,000 population, and knowing the population of your own city you can multiply results here given by the proper multiple and get at what the results would probably be in your case. For instance, Columbus, with a population of 120,000—the total results given in this paper should be multiplied eleven times. The lighting cost is given at so much per lamp per year, and if anything would be less as the population increases.

The owning of public franchises by a city does not run the municipality in debt for a very long period. The city owning the plant about which I have the honor to address you has a tax levy for municipal purposes of 13 mills, many miles of paved streets, and has a debt of so small amount that it could be paid by a 30 mill tax levy for one year. This city is Marshalltown, Ia. It is a pioneer among Western cities in the owning and operating of public franchises. Our experience in this regard has been most satisfactory, and I doubt if there is another city in the country so favorably situated in this regard as we are. Often, when in answer to some inquiry I have given the cost of our street lighting, my veracity has been questioned, and once an editor of a certain paper to whom I had sent the figures wrote me a very nice letter to the effect that I didn't know what I was talking about, and insinuated that I was talking through my hat.

But why should we hide our 1,200 candle-power lights under a peck measure when by giving the facts and figures some other city may benefit by our experience?

The ownership of water works by cities has now passed the experimental stage. All cities owning their water works are satisfied, and those that do not own them are cussing some water company. I will therefore give only a few facts to show that municipal ownership in Marshalltown has been a success.

In 1876, twenty-one years ago, the council decided, in the face of considerable opposition, to put in a municipal system of water works. In due time the work was completed and the people were satisfied. We have now outstanding \$37,000 water works' bonds that were refunded last year at 4 per cent. interest. The last report of the water commissioners showed that the plant had paid all running expenses and interest on the debt for all extensions and repairs, and left the city several thousand dollars profit and the use of 190 fire hydrants free of cost. The mains run to all parts of the city, and so well is the city covered that now we lay a main anywhere that we can get five consumers to the block.

The question of municipal ownership of lighting plants is, however, by no means settled. Few cities, comparatively, own their lighting plants, and I believe that our ten years' experience in this line will be of great benefit to other cities, especially, as I said before, to those cities already owning a water-works plant. For many years the only lights that adorned our streets were the old oil lamps, and they were few. Afterward came the

gas company and erected its lamp posts, and the people thought that great progress had been made in street lighting. Up to 1885 the city was paying the gas company at the rate of \$1,500 per annum for very poor service. In April of that year the Marshalltown Electric Light Company made a proposition to light the streets, by the use of sixteen arc lights, for the sum of \$1,800 per annum. Thus the question of street lighting came before the people, and for the next two years most everything was tried, and nothing proved satisfactory. On January 3, 1887, after nearly two years of constant agitation, a special committee was appointed by the council to draw up plans for a lighting plant, and on March 18 of the same year, the plant was ordered and work began at once. As the city already owned the water-works plant, and the same boilers that supplied the pump engines with steam could also supply the engine to run the dynamos, it was decided to build an addition to the pump station and have the two plants combined. This was done at a very reasonable expense. The street-lighting plant was equipped with one 80-horse-power Corliss engine, two T. & H. 30-light dynamos, sixty-four 1,200-candle-power lamps, circuit consisting of 15½ miles, No. 6 conducting wires, and all posts, shafting, belting, in fact, everything necessary to equip a first-class plant of this size. The total cost of the plant ready for operation was \$11,440.36. A year ago the city, feeling the need of more lights, the 30-light dynamos were replaced with two 75-light dynamos, the 80-horse-power engine being sufficient to run the same, and the number of lights increased until now we have ninety-eight lights. These improvements were made at a cost of \$3,500, so allowing \$1,000 for other materials added to the plant from time to time, the total cost of our present lighting plant, with a capacity of 150 lights, would be less than \$16,000.

The entire expense of erecting and running the plant up to September 15, 1897, is as follows:

Original cost and maintenance to April 1, 1888.....	\$11,995.10
To April 1, 1889.....	1,174.92
To April 1, 1890.....	991.17
To April 1, 1891.....	1,288.27
To April 1, 1892.....	952.18
To April 1, 1893.....	1,244.54
To April 1, 1894.....	1,001.70
To April 1, 1895.....	993.16
To April 1, 1896.....	1,314.38
To April 1, 1897.....	4,896.69
Up to the present time.....	1,270.56
<b>Total .....</b>	<b>\$29,122.07</b>
Cash paid out so far in 1897:	
First quarter, 1897.....	\$300.21
Second quarter, 1897.....	399.30
Third quarter.....	571.05
<b>Total .....</b>	<b>\$1,270.56</b>

The city has paid out since the electric-light plant began operations \$29,122.07; of this amount \$16,000 has been for original material, leaving \$11,122.07 for running expenses and repairs covering a period of ten years and three months, or about \$1,122 per year for running expenses.

For two quarters in 1897 during which time ninety lights were burned the expenses were for the first quarter \$300.21, and for the second quarter \$399.30; on the present quarter \$571.05 has already been expended, but much of this was for new material in putting up eight new lights.

To get at the exact cost of our city lights under municipal ownership is comparatively an easy matter. The same men who operate the water-works plant also look after the electric-light plant.

When this additional work was given them, each of the three men employed at the pumping station received an increase of \$5 a month salary, so that the only cost to the city for running the plant is \$15 per month, or \$180 per year. The lineman who looks after the circuits and lamps and carbons receives \$60 per month, or \$720 per year. The interest on the outlay of \$16,000 at 5

per cent. (the city can borrow money at 4 and  $\frac{1}{2}$ ) would be \$800 per year. The coal necessary to run the electric-light engine, which is easily ascertained on account of lamps not running on moonlight nights, is 115 pounds per hour, and during the month of August, 1897, the lamps run 151 hours, or a total of 17,365 pounds, or nine tons per month, or 108 tons per year, at \$1.25 per ton; the price we pay for steam coal would be \$135 per annum.

The running expenses, carbons and repairs would be about \$200 per annum. Then allowing 5 per cent. for renewal, which would complete every possible charge that can be made against the lighting we could have a total as follows:

Interest on \$16,000 at 5 per cent., \$860; renewal on \$16,000, at 5 per cent., \$800; salary at lighting station, \$180; lineman salary, \$720; coal, \$135; running expenses, \$200. Total, \$2,835.

Thus the city of Marshalltown has the use of ninety-eight 1,200-candle-power lights at a cost of \$2,835 per annum, or \$29.50 per light per annum. In this estimate I have made a very liberal allowance in everything, especially interest and renewal. Taking the absolute cost of lights to the city, we have to pay out about \$1,200 per annum at a liberal estimate, or at the rate of \$12.50 per lamp per annum.

It is true that we could not run our lighting plant at such a cost, only that it is operated in connection with the water-works station. I see no reason why any other city owning their water-works plant could not light their streets at somewhere near these figures. I am not surprised that the owners of private plants sometimes doubt our statements, but the city records are open and anyone can verify these statements.

I believe that it is needless for me to add that every man, woman and child in Marshalltown is a firm believer in municipal ownership of both water and light franchises. No one in our city thinks that private ownership is better, and they can never see how it is that other cities do not reach out and get the good things of this world that can be had for the asking. During the season probably 200 men are employed at different times on these two plants, but these positions are not used for political purposes. The city officials are elected on a personal canvass. Party politics never enter city affairs.

The city of Marshalltown is pleased indeed for the opportunity to lay our experience before this distinguished body, and if that experience is such that it will influence a single city or town to adopt the policy of municipal ownership, I think that every citizen of Marshalltown will be satisfied that it was a good thing to send her representatives to this first meeting of mayors and councilmen, that is at this time enjoying the free-handed hospitality of this beautiful city of Columbus, the capital of a State that has the reputation of endowing all her sons with brain, energy and patriotism.

#### TELEGRAPHIC SYSTEMS FOR THE FACILITATION OF FIRE AND POLICE SERVICE.

ADDRESS BY JOSEPH W. STOVER, OF NEW YORK.

GENTLEMEN OF THE CONVENTION—It was with considerable doubt and hesitation that I accepted, on a very brief notice, the invitation to appear before this convention. I realize and appreciate its dignity and importance, but I am encouraged by the thought that you must be deeply interested in the perfection and use of any agent or means which tends directly to promote the efficiency of the fire and police departments of municipalities, for on these frequently depends the protection of life and property.

In most cities of this country fire and police departments of municipalities are separately organized and governed, though in some of the more modern city charters these departments are united under one head, entitled "The Department of Public Safety." The history of civilization shows the importance of giving prompt alarm in case of fire, but until as recently as 1850, a period within the memory of many men still in active life, electric fire alarms were unknown. In the largest cities there were no means for arousing firemen and citizens, except the primitive method of shouting alarms and ringing bells, which still prevails in many smaller communities.

Except in New York city, no attempt was made to give any information by bell or other signals as to the location of fire. In New York, as early as 1845, the city was divided into districts and a watch tower was provided in each district, and watchmen were kept on duty at all hours. The districts were numbered, and when a watchman discovered a fire by seeing the smoke or flame, or a fire was reported to him, he would strike upon his bell the number of the district. This was heard by the watchman on the next tower, and repeated by him, so that the alarm was in that way gradually announced from all the watch towers in the city.

The first suggestion for the use of the telegraph for fire alarm was made by Dr. W. F. Channing, of Boston, as soon as he learned of Professor Morse's earliest telegraph experiments in 1839. In 1845, after the commercial use of the telegraph had been demonstrated, Dr. Channing published an article in the *Boston Advertiser*, describing a method for the application of the telegraph for giving alarms of fire.

In 1851, after two years of work, he succeeded in interesting the city council of Boston in the fire alarm telegraph to such an extent that \$10,000 was appropriated to try the experiment. Dr. Channing's plan then proposed numerous box stations, connected by telegraph circuits with a central office, from which all signals received from the boxes were sent out over other circuits to the bell towers, and the box signal was thus simultaneously struck upon every alarm bell in the city by electric mechanism.

Dr. Channing, at about that time, associated himself with Mr. Moses G. Farmer, who was recognized as the most expert electrical mechanic of that day, and Mr. Farmer worked out practically the machinery necessary to complete the inventions, which were made either by Mr. Channing or by Mr. Channing and Mr. Farmer jointly. Mr. Farmer constructed the Boston system, and continued in charge of it for several years.

In 1855 Dr. Channing delivered a lecture on "The Fire Alarm Telegraph," in the Smithsonian Institute, in Washington. Very little was done during the civil war, from 1861 to 1865, in the way of improving or extending the fire-alarm telegraph service; but immediately after the war, in 1866, the work was again actively pushed by the late John N. Gamewell, who had become the owner of the Channing and Farmer patents. The progress of the business was at first very slow. It was not until 1869 that the original system was installed in the city of New York, although its value had been demonstrated by eighteen years of successful use in Boston, and it had been meanwhile established in about twenty cities in the United States, most of them in New York and New England.

In these days, when the absolute necessity of the fire-alarm telegraph service is understood by everyone, it is hard to realize the discouragements and disappointments which were encountered by the early promoters of the business, and the almost infinite difficulty which they had to overcome in convincing the public and municipal authorities that they could not afford to go unprotected by the fire-alarm telegraph service.

In spite of the fact that the original Boston equipment and every one established thereafter, saved, on an average of years, many times its cost every year, during the first twenty years, from 1851 to 1871, only about twenty cities were provided with fire-alarm apparatus. In 1876 this number had increased to seventy-five; and during the following decade, from 1876 to 1886; again from 1886 to 1896, and up to date, in 1897, the progress of the business has been much more rapid, so that to-day there are nearly 800 places in the United States equipped with fire-alarm telegraph service.

To Messrs. Channing and Farmer is due the fame which justly comes to inventors who have rendered invaluable service to mankind. But to Gamewell and his successors will ever belong the credit for the equally valuable service which their perseverance, energy and capital have rendered in extending the benefits of the fire-alarm service into nearly every important city or town in the United States.

There is no greater contrast between the first locomotive and train which ran through a few miles of the Mohawk Valley in New York, in 1839, and the Empire State Express train of to-day, than there is between the alarm boxes and central station



first established in Boston, and the superb, elaborate and complete equipment, such as can now be seen in most of the great cities.

While the fundamental principles and ideas of the modern fire telegraph were embodied in the original Boston installation, the mechanical and electrical details have been extended and perfected, and many new and essential features have been added, so that to-day a fire-alarm system, as found in our large cities, is one of the most complete triumphs of modern skill and genius in the application of electrical science to the uses of mankind.

Inasmuch as I have been intimately connected with this work for more than a quarter of a century, I should hesitate, perhaps, to make this statement, but for the fact that the perfected fire-alarm service of to-day is an evolution, not the work of any one or two men; but the outcome of the combined inventive genius and mechanical skill of many.

The original system of fire telegraph, as introduced by Channing and Farmer, required a central office equipment, with operators on duty day and night to receive alarms sent in from the street boxes, and to repeat them over separate and distinct lines from those on which the street boxes were placed to the fire department, and to church or tower bells for the purpose of general alarms. In fact, it was considered up to within a few years ago essential to give the public notice of all alarms of fire, and in Boston there were in use up to within a few years ago for this purpose over fifty tower bells; since then the number has been largely reduced. Such a system, of necessity, involved a very considerable expense for its care and maintenance, and only the largest cities could afford, notwithstanding its manifest advantages, to adopt it. But the invention of the automatic repeater brought the fire telegraph within practical and easy reach of the smallest cities and towns. This invention of the automatic repeater and transmitter was one of the most important in the entire history of the fire-alarm telegraph, and this instrument, as perfected and now in use in hundreds of cities, is one of the most notable triumphs of modern skill in electro-mechanical apparatus. By its use the operation of a street box starts into life a series of electrical and mechanical movements, by which means bells, whistles, gongs, even miles apart are instantaneously sounded, not only notifying firemen and citizens of the existence of the fire, but indicating its exact location as well.

As in almost every other important invention for the benefit of mankind, many changes and improvements have from time to time been found necessary in the development of the basic idea of the fire telegraph.

Conditions under which it was originally used have materially changed, and, as in the case of the automatic repeater, improvements have been made to meet the new requirements.

The improved modern systems are on exhibition here, except the very complete and somewhat complicated apparatus required for the central offices of the largest cities. Photographs, however, illustrating one of the most complete equipments of this kind, viz., that now in use in the city of Brooklyn, N. Y., have been placed on view by the exhibitors. Most modern systems now in use, outside of these large central office equipments, generally embrace signal boxes, operating whenever the hook is pulled. This hook is only in sight when the outer door is open, and once started cannot be either locally interfered with nor by the pulling of the hook of any other box. To some extent keyless doors are used, the best type of which are those which are operated without the necessity of either the use of a key or the opening of the door, the turning of the handle, protruding from the front of the box, being all that is required to transmit an alarm. There are gongs of all sizes, for use in the department houses, operated electro-mechanically, and sounding the number of any box pulled; also indicators, which automatically display in plain figures the numbers of all boxes from which alarms are transmitted. The use of these instruments obviates the possibility of a mistake in miscounting the blows on bells or gongs. I have no intention, however, of wearying you with detailed description of any of the apparatus thus hastily referred to, but in a few words permit me to call your attention to one or two recently added

features, which are really quite important for the protection of the fire telegraph and its most convenient and successful use.

The comparatively recent introduction and utilization of high potential current of electricity for light and power purposes has made the ordinary "lightning arrester," which was arranged to divert atmospheric and lightning discharges from the finer parts of the signal boxes, and other fire-alarm apparatus, to the earth, entirely inadequate, and a very effective "cut-out" protector has been introduced. It is comparatively easy to cut out from a signal box any electrical point of high or low tension by a simple device controlled by the door, but to do this without incurring the liability of interfering with the correct transmission of alarms is another thing; but, as I have said, it has been accomplished.

The accumulating and storing of electricity, as water in a reservoir, for subsequent use has been the subject of attention and study for many years, and it is only within a comparatively short time that it has been utilized to any considerable extent. Practical tests have, however, demonstrated the superiority and economy of the storage over gravity batteries for fire alarm and police-telegraph service, and there is no longer any question that, with the proper means for handling and controlling, much better results, at less expense, can be obtained.

In the use of the storage-battery system a duplicate set of battery is provided for each circuit, in order that one set may be charged while the other is being discharged; but as one cell of storage battery is practically equivalent to two cells of gravity, the total number of cells required is the same as in a gravity plant.

Some of the many advantages derived from the use of the storage battery, as compared with the gravity, are as follows:

The space occupied is about one-third.

There is no formation and creeping of salts.

There is not the disagreeable cleaning incidental to the use of the gravity battery.

There are no zincs, coppers, or bluestone to buy.

The cost of maintenance is about one-third that of the gravity cell. In many instances the charging-current supply is furnished free by local light or power companies.

The electromotive force and internal resistance are practically constant.

The discharge of current is regular and uniform.

As there are duplicate batteries provided for each circuit, there is always one in reserve ready for immediate use in cases of accident.

The history of fire telegraphy has not only shown rapid progress toward greater certainty of operation, and a multiplication of the functions of the apparatus to meet the demands of nineteenth century civilization, but every effort that science and ingenuity could muster has been brought to bear on the vital question of how to save minutes, and even seconds, in giving alarms of fire. In spite, however, of all the progress in this direction, it was, until quite recently, necessary for the person discovering a fire to run to the street box to give an alarm. The alarm once given, not a second is lost in getting the engines to work; but the time lost in getting to the street box, which may be two or three blocks away, or in getting from the upper story in the building to the street, is of such incalculable value that a system has been devised whereby this valuable time is saved. This system is known as the auxiliary fire alarm, and its use in the dozen or more important cities of the country in which it has already been placed has conclusively demonstrated its importance and value. The history of the auxiliary system is a continuous record of fires "nipped in the bud," of lives saved, and of a greatly reduced rate of property lost. This system practically multiplies the number of street-signal stations indefinitely. It, in effect, brings these street boxes within dwellings, factories, hotels, schools and other institutions. Any desired number of small auxiliary boxes, about the size of a man's hand, can be scattered throughout a building in convenient locations, and these are electrically connected with the nearest street fire-alarm box. In case of fire it is only necessary to break a glass in the

front of an auxiliary box, pull down a ring, and the street box to which it is connected is immediately set in operation, and the alarm promptly transmitted. In case of fire in a school, where the lives of children are the first care, the teacher can pull the auxiliary box at her desk, and, secure in the knowledge that help is coming, lead her pupils out without panic. From this brief explanation you can easily understand the great value of such a system in factories, hotels, theatres, and even in private dwellings. Chief Bonner, of the New York fire department, says that he "counts seconds" in getting to fires. When it is a question of minutes saved, the great value of such a system as the auxiliary cannot be overestimated.

In concluding what I have to say on the subject of fire alarms, permit me to add that to secure satisfactory results the systems used must be prompt and certain in action and durable in construction. The street stations should be easily accessible and so simple that anyone discovering a fire will know how to use them; in fact, so perfect that mistakes in starting an alarm will be impossible. The alarm apparatus must be powerful enough to waken men if asleep and reach them anywhere within city limits. In the construction of fire-alarm telegraphs, long experience and superior mechanical skill are of the utmost importance. Everything should be of the best material and workmanship. Much of the apparatus must be placed out of doors, exposed to wind and rain, and the constantly recurring changes of our variable climate; hence, the finer parts must be substantially made and carefully protected. Portions of it may stand unused even for months, but when needed it must respond quickly and correctly. A single failure might result in a loss far beyond the cost of the best system; and it is poor economy which regards cheapness as of more importance than reliability.

The lines should be built with the very best quality of galvanized iron or hard-drawn copper wire, every joint soldered, thoroughly insulated, and secured to poles not less than 20 feet above the ground. Where the circuits leave the central office, and enter bell towers, engine houses, or street signal boxes, iron wire should be well soldered to thoroughly insulated copper wire leading to the apparatus.

During recent years, in large cities, it has become necessary to protect the wires of fire and police telegraphs by placing them in cables in underground conduits. It is of the utmost importance that this work should be perfectly done, in order that the fullest benefits may be realized from the expense required in making this important change.

Progress in underground telegraphy has, until within a few years, been necessarily experimental, and there are instances where losses and disappointments have occurred from various causes. In the present state of the art it is possible at moderate cost, compared with the expense when such work was at first attempted, to procure underground telegraph connections which will be absolutely reliable.

Before adding a practical suggestion concerning the purchase of apparatus for municipal telegraphs, let me call your attention for but a moment to the combination of telephones and signal telegraph for police departments, now in use in about eighty cities.

The intelligent public have within a few years recognized the fact that a reliable, rapid and somewhat automatic system of telegraphic signalling, in combination with the use of the telephone, is absolutely essential to secure full efficiency in police as well as in fire departments. The police-signal telegraph may be said to have sprung into existence as the result of the development of the fire-alarm telegraph. The first attempts to establish telegraphic communication between different police precincts and the central police station, in large cities, was confined to the use of dial transmitters. These were very complicated in construction, exceedingly slow in operation, and could be considered only useful to the extent that they were a little better than nothing. "Printers" were subsequently used to quite a limited extent, but these required expert operators. The first system of police telegraph which can be considered as anything near complete and satisfactory in operation and results, and by which every patrolman could easily place himself in communication with his pre-

cinct or the department headquarters, and by which every officer on duty could be quickly reached from headquarters, was put into successful operation in Chicago by Professor Barrett, who at the time, and for some years previous, had been superintendent of the fire-alarm telegraph, and also of the very inadequate means of police communication then in use. Since that time the experience of the largest police departments in the United States, as well as many of those in the smaller cities and towns, has been such that new uses and advantages are being constantly developed. The following may be mentioned as among the most important:

It insures discipline and attention to duty on the part of the force, and at the same time protects the patrolman against unjust charges of neglect thereof.

It gives to every citizen and patrolman, however remote from headquarters, a means of summoning police assistance.

It enables the authorities humanely to care for the unfortunate victims of accident or sudden sickness, and it affords the opportunity to convey to the station in a properly arranged wagon the drunkard or criminal without lamentable exposure.

It establishes telegraphic and telephonic communication between the police stations and all policemen on duty, both day and night.

It does away with the necessity of the patrolman leaving his beat when he has made an arrest, and adds immensely to the individual importance and power of each member of the force, as well as to the effectiveness of the department as a whole.

In conclusion, gentlemen, permit me to offer a few words in the way of friendly suggestion.

The efficiency of your police and fire departments is largely dependent upon you. I am well aware that the office of mayor, alderman or councilman in a municipality is no sinecure; that there is much work, and but little or no remuneration, but, if you have to do with either of the departments named, I trust you will realize the importance of furnishing and maintaining the best system of fire and police telegraph which inventive genius and mechanical skill have produced. Remember that the cheapest is seldom the best. The best most always proves the cheapest. Statistics show that for the past ten years the losses by fire have averaged over \$100,000,000 per annum. This amount dissipated in flame and smoke. Individually owners may be partially reimbursed by insurance, but none the less the loss is actual. It is so much wiped out, just the same as if it had been thrown into the sea.

In New York city, just as the present administration of the fire department were claiming a great reduction of losses for '96 and '97, as compared with previous years, the Board of Underwriters, of that city, report that for May, June and July, of this year, the losses have been \$615,293.00, while for the same three months of '96 the losses were but \$339,325.00. The fact is that comparisons in this line seldom establish anything, and excessive losses in a given time cannot always be attributed to the inefficiency of the fire department, no more than an exceedingly limited amount of loss in a given period can be always attributed to superior management or efficiency of that department. But one thing a city official can always count on, viz., that unexpected and excessive losses by fire in a municipality will surely be the subject of investigation by insurance interests, and it is therefore for their own credit, as well as for the interests of those who have placed them in office, that everything pertaining to the fire department shall be at its highest point of efficiency.

### IMPORTANT NOTICE.

The Bureau of Information of the League of American Municipalities is now ready to serve members. All inquiries relative to municipal affairs will be promptly and carefully investigated and reported upon. Officials of cities holding membership are cordially invited to request from the bureau any information they may desire.

B. F. GILKISON, Secretary.



THE RELATION OF MAYORS AND COUNCILMEN  
TO SANITARY PROBLEMS.

ADDRESS BY ALEXANDER POTTER, C. E., NEW YORK.

MAYORS AND GENTLEMEN IN CONVENTION—No one could more heartily welcome such an opportunity as that afforded by this convention for the discussion of municipal problems than does the sanitary engineer. The need of such gatherings has long been apparent to him, dealing as he does with problems but partially and imperfectly understood by the general public, yet vital to their very lives and happiness, problems in the solving of which he should have the support and co-operation of every mayor, official and public spirited citizen. He welcomes such an occasion the more because it furthers the intelligent comprehension of the importance of the issues, and reveals to those who are the custodians of the public health and welfare the necessity of their co-operation for the attainment of great and permanent results. To this end there is great need for the specialist and the man of affairs to come into closer touch. As leaders in the affairs of your respective cities, educators and moulders of public opinion, and promoters of public undertakings, your "Relation to Sanitary Problems," and the subject of sewerage and sewage disposal, which we are about to discuss, is of absorbing interest, and not the least of those which have occupied your attention these past few days. As an educator along sanitary lines this convention is truly fraught with immense possibilities. Such gatherings and discussions augur well for a time when the health, cleanliness and welfare of the people will be of far greater account in the minds of men than the rush of trade or the accumulation of wealth.

We are proud of our country and our homes. In fact, no prouder body of citizens could assemble the world over than this body of mayors and officials of our great American cities. The word "American" is synonymous with enterprise, thrift and progress. She already leads or competes in the markets of the world and in industry. It is now our privilege to place her at the very front in great sanitary measures; to make her cities the most healthful, her waters the purest, and her sanitary conditions the most perfect and comprehensive in the world; remembering that health is the foundation of prosperity, and that a sickly and disease-ridden people cannot long lead in the keen competition of the world. In attaining and maintaining a healthy condition in thickly populated communities sanitary sewers are one of the greatest and most powerful factors. In sanitary measures it must be admitted that European cities are much in the lead, and they have found such improvements almost their best invested capital. There, the engineer and specialist has had almost the unlimited confidence of the people, and their support in every experiment for the solution of sanitary problems; and we may profit by their experience.

Let us take it as fundamental that health is the poor man's capital. Of more importance than even industrial prosperity, than the right adjustment of capital and labor, than the promulgation of proper laws and governmental methods, is the health of the people. Furthermore, we now know that the poor cannot be unhealthy or suffer from loathsome and infectious diseases and unsanitary conditions and the rich not suffer with them. Every epidemic of typhoid, cholera, dysentery and diarrhoea, bred and spread from obnoxious cesspools, unsewered towns, improper sewage disposal and polluted waters, teaches this dread law of the transmission of deadly disease germs, germs which can only live and thrive where unsanitary conditions prevail, and concerning which the knowledge of science is beyond doubt. It is as unnecessary to suffer from zymotic diseases as that our people should be generally afflicted with leprosy. Sanitary science and sanitary conditions can effectually prevent them, and if they occur something is radically wrong. But, furthermore, unsanitary conditions unquestionably make themselves felt among a people oftentimes when there is not even a sign of an outbreak of disease, in general sickness or debility, and even in a proneness to crime, shiftlessness or intemperance. The health of the people is to a great extent in the custody of their appointed wardens, and though they may be ig-

norant of their conditions you cannot too seriously regard your responsibility in their behalf.

In this assembly are represented without doubt three classes of cities: Those who are without sanitary sewers; those but partially sewered and with no ultimate disposal system, and those with systems installed.

It matters but little which class I am addressing, for it is safe to say that there is not a city or town in the country where the question of sewerage and sewage disposal is not pertinent, or where sanitary problems are not liable to arise, many of them such that they should receive the careful attention and advice of a thorough specialist.

I am told that the question of sewage disposal is fraught with particular interest to the officials and citizens of this convention city, on account of an injunction restraining the use of a system of sanitary sewers which they have constructed, until such time as some adequate method of sewage disposal shall be adopted. This city might well serve as a text for a discussion upon sewerage and sewage disposal, and the absolute necessity in the inception of providing, not only a comprehensive plan for sewerage, but also for its ultimate disposal.

The first word, then, to those contemplating the introduction of sewerage, and, in fact, regarding every act concerning them, is:

Always endeavor to take comprehensive action and make large and wise provisions for future development Stinted economy in the beginning never pays in sanitary matters in the end. Employ a thoroughly experienced specialist to make general and comprehensive plans for the whole system, together with plans for ultimate disposal when needed, and educate the people to see the advantage in so doing. In most towns, large and small, which are yet without adequate sewerage, it is often argued that the city engineer should do this work. This is not reasonable. Holding office generally by political preference, it is not an easy matter for the great majority of them to impress upon the authorities the absolute necessity of a general design for the entire system, or to secure an appropriation adequate for the work. Neither have they time outside their routine work to become thoroughly versed in the special branches required or to study the details of such a design as will insure absolute and satisfactory results. Such important and comprehensive work should, therefore, naturally fall to the specialist, and the city engineer should not think himself slighted by the employment of the expert. The extra money thus spent is not wasted, for the specialist will, of necessity, employ the good points which his varied experience has taught him, and will profit by his former practice and his mistakes and those of others, and thus save much money in the end by preventing mistakes and costly experiments in schemes and methods which have been tested elsewhere and failed.

Probably no official present will pass his term of office without being called upon to take some action regarding sanitary matters in his respective city. In this brief address I cannot even touch upon many of the questions which may come before you, but if you are guided in your actions by a large and far-sighted policy favoring always the most thorough investigation and treatment of each and every question, securing the most reliable advice on all doubtful and involved questions, and endeavoring to promote and advance the best sanitary methods and conditions, you will scarcely go amiss. Above all, keep these serious questions, relating to the very lives and health of the people, out of the pale of politics.

It is not alone to representatives from small, unsewered towns that my remarks are addressed concerning the necessity of sewers properly planned and constructed, but as well to representatives from cities reported to be adequately sewered, but where large sections, often equal to good-sized towns, still remain unsewered or in an imperfectly sewered condition, liable to breed pestilence and generate bad and unhealthy odors.

*Continued on Page 126.*

## CITY GOVERNMENT.

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### EDITORIAL NOTE.

This issue of CITY GOVERNMENT is devoted to a report of the proceedings of the first convention of the League of American Municipalities, to the exclusion of our regular departments. It will be observed, however, that CITY GOVERNMENT could not better cover the whole field of municipal departmental work than by publishing the proceedings of the Columbus convention. The addresses delivered and papers read at this important gathering of city officials are of sufficient value and interest to command publication in full, and for that reason, rather than to print incomprehensive extracts, CITY GOVERNMENT this month devotes its whole space to this matter, and will publish the remainder of the proceedings in the November issue. Among the important addresses and papers, the publication of which will have to be deferred until next month are: "Modern Construction and Maintenance of Electric Wires and Their Supervision by Municipalities," by William Brophy, chief electrician of the city of Boston; "Street Lighting," by Henry Hopkins, of New Haven, Conn.; "Private and Municipal Ownership of Water, Gas and Electric Lighting Works," by Allen Ripley Foote; "Social Side of Life in Cities," by Mayor S. M. Jones, of Toledo; "Influence of a Poor Milk Supply on the Death Rate of Children," by Nathan Straus, of New York; "Federal Plan of Government," by Dr. Washington Gladden, of Columbus; "The Filtration of Water," by Edmund B. Weston, C. E., of Providence, and "The Disposal of Municipal Waste," by W. F. Morse, of New York.

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### THE RELATION OF MAYORS AND COUNCILMEN TO SANITARY PROBLEMS.

*Continued from Page 125.*

which will find their way into the sewered and carefully guarded parts of the city.

When we call to mind that this beautiful city of Columbus has only within the last few years constructed a system of sanitary sewers; that New Orleans, with its population of a quarter of a million, is just constructing and completing her system of sewerage and sewage disposal; that Los Angeles, Cal., with a population of 50,000, and Baltimore, with a population of 450,000, have recently appointed sewerage commissions; that the city of Newark, N. J., where millions of dollars have been spent in sewers, is now contemplating the employment of an expert to tell them what they need; that the city of Elizabeth has had so much trouble with its sewers that it has recently appropriated a sum of money for an expert to advise as to the proper method of relief; and that many other cities are under injunctions for polluting streams used as sewerage outlets, and are wrestling with the question of the final disposal, we can readily see that permanent and perfect sewerage for many large cities is still to be accomplished, and that in many it is only in its infancy. Perhaps some towns or cities here represented have been lulled to sleep with the idea that they are properly sewered, only to find that they must yet tackle the problem in its totality, and that their officials must, in the near future, face most serious and vexing problems of sanitation and drainage.

Chicago is a notable example of a foresighted city, and her comprehensive plan, prepared in 1855, and designed to meet her future needs, after much expensive preliminary investigation, is still being carried out, and has undoubtedly saved her untold sums and much useless and expensive construction, though it cost her largely in the beginning, and she has of late been compelled to change her place of sewerage outlet.

No town should rest with any sense of safety while a single cesspool remains, to prove, perhaps, the starting point of a fatal epidemic by polluting its wells or sources of water supply, or by fouling the air with noxious odors. Nor should any city be content so long as imperfectly jointed and promiscuously laid private and public drains, with no proper facilities for flushing or removal of excreta, occupy its streets, proving oftentimes active promoters of zymotic diseases.

If it is a question of cost, then over against what sometimes seems large outlay must be placed the decrease in the death rate, which has in itself a money value, estimated by some at \$1,000 for each adult life saved; the improvement in general healthfulness; the attraction of population where the death rate is low and sanitary improvements complete; the comforts afforded and the conveniences made possible by the introduction of sewers; and the increased effectiveness and availableness of your water works system.

It is well, also, and a great saving in the end, always to consider the question of sewerage before laying expensive pavements, which will have to be torn up if the sewers are not first laid.

We are not here to discuss any pet theories, and can at best simply touch upon a few practical and leading points to aid you in future considerations of sanitary problems. It would be impossible to give you in so brief an address what would require scientific discussion to fully develop, but perhaps such discussion would hardly aid you as much as a few absolute deductions from experience and scientific investigation, both personal and from other sources.

When considering the kind of water carriage system of sewers, both the separate and the combined systems will be found to have their advantages and their disadvantages. With either system peculiar difficulties often arise which are problems more or less difficult of solution.

The separate system, which is by far the cheaper of the two, and easily within the reach of almost every town, provides for the carriage of sewage and cellar drainage only; while in the combined system provision is made for both sewage and surface



drainage to be carried in the same conduits. Consequently, provision must be made for the carriage and disposal of a very much larger flow of mixed sewage in the latter, which in times of severe storms it becomes impossible to cope with. The sewage from the houses themselves, as well as from the streets, is at such times backed up into the cellars, depositing filth and germs of disease. This cannot occur in the separate system, where the sewage proper is carried off in separate pipes, and consequently is unaffected by increase of storm water. Moreover, it must be remembered that the dilution of the sewage in times of storm does not in any way lessen the disease-breeding qualities of the sewage. It is therefore as necessary to make provision to treat this large quantity as if it consisted of the crude sewage alone.

Again, in these large conduits, the subsidence of the storm waters leaves the sewage clinging to the walls of the sewers above the reach of flushing, there to decompose and give off offensive odors and disease-breeding germs,—while during a period of low flow or no rain the sluggish sewage, insufficiently flushed, often becomes so offensive that the sewers in themselves become a nuisance, so much so that the introduction of a separate system, using the existing sewers for surface water drainage, is often the cheapest and best solution of the difficulty.

On the other hand, if your city has established the separate system, it is often the case that the street wash is at times almost as impure as the sewage proper. While this does not lay a city liable to legal difficulties, we may consider it perhaps a moral obligation to make the flow off of even surface waters into streams affording water supply to other towns as pure as possible. The solution of this difficulty is clean streets and area ways; and ample evidence that these are possible has already been produced in many cities.

Not many years ago the announcement of what is known as the "germ theory" of the transmission of certain diseases caused a revolution in the sanitary world. Previous to that time little or nothing had been heard of sewage disposal or sewage purification. To-day it is the most pressing of all sanitary problems. Cities were thought to be properly sewered if their wastes emptied into and were carried away by some nearby stream or body of water—a water forming, perhaps, in whole or in part, the very water supply of some other town or city and daily polluted by this refuse. As population increases this becomes less and less permissible. The history of stream pollution and the discussion of measures for its abatement is a long history of repeated and fatal epidemics and of scientific investigations following, until at last the laws of some States have declared that crude sewage shall not be discharged into any body of water used as a water supply at any point within the influence of the sewage. This statement may be considered the fundamental proposition of modern sewage disposal. May the time be not far distant when all States will regard this matter in the light of its true importance.

There is still some question, however, as to the limit of influence. It has long been held that a stream will purify itself in a given number of miles, and the Legislature of Massachusetts has, by enactment, made 20 miles the limit of supposed influence. In fact, however, this theory is erroneous, for though there is always a tendency to purification, a stream will never become quite pure. This being the case, sewage treatment is essential and almost every city must sooner or later meet this problem, as the population of the country increases.

When the necessity for sewage disposal became apparent, much was said concerning the immensely valuable properties in sewage, just as we are now talking, but with more hopes of speedy realization, about the immensely valuable properties in garbage, and for a long time the true method of disposal seemed lost sight of in the numerous attempts made to coin money therefrom. Only within the past year I have been approached with a scheme for converting sewage into a veritable gold mine. The promoters endeavored to demonstrate that by the admixture of certain chemicals and other materials (to produce balanced fer-

tilizers) to the sewage of a town of 15,000 people, the net earning would exceed \$225,000 per annum. We all know now that the wastes of our cities contain a great amount of value if it could be properly extracted, but we are sometimes reminded of what Professor Storer says of the city of Philadelphia. "The city," he says, "stands on an extensive bed of clay, which contains a pound of gold for every 1,000,200 pounds of clay, and it appears evident that this bed of clay contains, within the corporate limits of the city, at least \$1,000,000,000 worth of gold. Except, as a matter of scientific interest, no one has ever dreamed of extracting the gold from this Philadelphia clay. It can be got with infinitely less trouble from places where it is more abundant." Perhaps we cannot blame the farmers when they tell us that sewage is a troublesome fertilizer, and have often outwitted the best scientific efforts for the utilization of sewage as a fertilizer by refusing to take our sewage the year round, as we have planned.

But is the sewage entirely wasted, though yielding no ready return? It has yet to be proved that the dumping of crude sewage into the sea is a waste of raw material, since it causes a rapid multiplication of *entomostraca crustacea*, the favorite food of carnivorous fish. A large per cent. of the herring used in England are caught off the shoals near where the London sewers empty.

So that in a consideration so important as the establishing of a system of sewage disposal, it is well to keep in mind, not so much the money return, as the effectiveness of the system chosen.

In choosing such a system or combination of methods, many things must be considered. Each case must be considered upon its own merits, and the amount and character of the sewage to be disposed of, the situation and future growth of the city, the sum possible to expend on the construction and the character and cost of the land in the locality will all prove factors in the determination.

Among the methods of disposal now in use, three are general:

First—Broad irrigation, or the distribution of sewage over a large surface of agricultural ground. On account of the large areas required, and the skill and cost of labor necessary in order to meet expected returns, this system seems restricted in this country, for some time at least, to special cases; best applicable, perhaps, at large institutions where inmates furnish the labor, or in the West, where water in any form upon the land is eagerly sought. Broad irrigation, however, is being successfully applied at Berlin, and in a few places in this country. With proper management of the irrigated areas, whether with the pipe and hydrant method, the ridge and furrow, or the catch-work system, no difficulty need be found in securing products which are fairly equal to those from ordinary farming.

Second—Intermittent filtration, or the concentration of sewage at short intervals on a limited area of porous ground, coarse sand being considered the best material. This system differs from broad irrigation in that production upon the land is of secondary importance, and the area required is comparatively small. The action of purification is mechanical, chemical and biological. It is not merely filtration but the oxidation of the nitrogen of ammonia, and its ultimate conversion into nitric acid. To use a familiar simile, the sewage traversing the soil undergoes a process very much like that experienced by the blood in its passage through the lungs in the act of breathing. The soil virtually performs an act of respiration, alternately receiving and expiring air, thus oxidizing the filthy fluid which is trickling through it. Recent experience has shown that filtration through open sand or gravel, not covered with soil, gives the greatest results. By this method from 97 per cent. to 99 per cent. of the organic matter can be removed, and a somewhat less per cent. in winter. If land adaptable to this purpose is available, this method of filtration is thoroughly effective and cheaper to install than either broad irrigation or chemical precipitation. A combination of the two methods just described will give the most satisfactory results for the year round.

In the mind of the writer the ideal method of disposal will consist of a network of pipes branching out over a territory containing acreage at the rate of one acre to 200 people sewered, through which pipes the sewage can be pumped.

These pipes can again converge, producing circulation. Throughout this piping system openings should be made controlled by valves, through which the sewage can be let onto different fields at convenient points or into subsidiary systems. These openings can be controlled by the farmers, so that in times when sewage is not needed on certain districts it can be shut off, thus securing the highest efficiency of the sewage as a fertilizer, and giving it a cash value to the farms past which it runs.

Along the line of this, piping areas will be encountered where the ground either is or can be easily made adaptable for intermittent filtration, on which the variable surface can be discharged and filled before entering the watercourses.

The third method is that of chemical precipitation, the cost of which in general greatly exceeds the other methods described. At one place where I have constructed such works, in making provision for the sewage of 20,000, prices for filtration bed system, under most adverse conditions, were cheaper by 50 per cent. than chemical precipitation. This system should only be used where the requisite land cannot be secured in close proximity to the city.

The methods of the addition of chemicals to the sewage, by which the insoluble precipitants are formed, the grinding and mixing of the chemicals, and the removal and caring for the sludge are the parts of the chemical treatment of the sewage. About two-thirds of the organic matter can be removed by chemical precipitation under favorable circumstances.

From this brief outline will be seen the general methods of sewage disposal now in use. Further investigation may probably result in the discovery of processes more thoroughly equal to perfect disposal, and, at the same time, calculated to give more valuable products. It is with the co-operation of progressive communities that we can hope for more perfect results in the future.

In closing, I would like to say a word in regard to sewer franchises, the assembling of municipal works, and the use of garbage as a power producer.

As the health of the people is so closely allied to the introduction of sewers and the proper method of disposal, it is hardly a proper subject for the granting of a franchise. Yet, we find in many parts of the country such persistent opposition to the expenditures of large sums for any municipal improvement, or legal restrictions against municipal indebtedness, that when we think of health as of such paramount importance it seems not improper that under certain restrictions as to the character of the system and of disposal, the right of the city to purchase at a fair valuation on stated terms, and to participate in the profits during the operation of the franchise, cities might grant such. But I should advise this only in extreme cases, for I am a strong believer in municipal ownership of public works, such as water, gas, electric light, sewers, etc. I am further of the opinion that the undoubted advantage of assembling the different plants has not been realized. Railroads are abandoning long-established, well-equipped and costly shops for the sake of centralizing their interests, finding the decrease in the operating expenses many times greater than the cost of the new construction and installation. The centralization of municipal works will effect a great saving of power and labor, which will accrue to the benefit of the city. In many cities there is no reason why power for all these works cannot be generated at a main central station; and if for any reason whatever a complete assembling is impossible, then with the present advanced methods of transmission of power by electricity, and by compressed air, what power might be required for outlying station can be transmitted economically to automatic machinery.

There is, moreover, no reason why the garbage of the city should not in part supply that power, thus disposing of the

garbage, and rendering some return to the city. There is now no longer any doubt that the burning of garbage produces more heat than is essential to create the force draft necessary to prepare the garbage for burning. The amount of this surplus heat greatly varies in different cities, and at different seasons. It is also a fact that the destruction cells can be arranged in connection with the furnaces of the boilers to utilize this heat to the utmost, and to consume the gases in such a manner that no offensive odor emanates therefrom. In a municipal system I am about to construct the water pumping station, electric light station, motors to generate power for transmission to an automatic lift to raise the sewage of an outlying low district into the main system, and pumps to deliver the sewage onto filtration beds, are all located in one building, the power for each generated from one battery of boilers, the furnaces of which are especially designed for the combustion of garbage, and the utilization of whatever heat may be contained therein, securing the remainder from coal. By such a design we hope to save much by reduction in wages and economy in operation. The many advantages of such a combination are obvious when such can be effected. Where, when and how such combinations can be most readily effected must be left to your engineer.

### THE CONVENTION EXHIBITS.

The street-cleaning machines exhibited by the St. Louis Car Company, of St. Louis, attracted a great deal of attention. The many superior points about these machines were thoroughly demonstrated by the work done by them on the streets of Columbus. Mr. John Dieterich, Jr., who had charge of the exhibit, by an energetic gentleman who believes in the old saw that "seeing is believing," and he proved the efficacy of his machines is putting them into operation. It was not only demonstrated that



EXHIBIT OF ST. LOUIS CAR CO. 746

the St. Louis Car Company's machines sweep thoroughly and quickly, but that they are easily manipulated and fitted to successfully cope with all the exigencies that arise in the cleaning of any kind of a street. The hundreds of mayors and councilmen who witnessed the work of these machines were particularly pleased with the way in which they picked up every particle of dirt without filling the air with dust. There is no doubt that the exhibition of these machines convinced all the officials that all the problems of street cleaning could be easily solved.

The Furnas pneumatic street cleaner was exhibited by the Indianapolis Street Cleaning Company. The machine was worked on the streets of Columbus, and Colonel Waring, of New York, and many other officials who witnessed its operation, praised it very highly. The Furnas machine cleans with an air-blast current, requires no sprinkling, and picks up the dirt thoroughly. With a driver and operator, and one or two wagons to haul sweepings to the dump, this machine will clean, on an average, 6 miles of 40-foot street every ten hours.

The Scheibell-Brown Company, of Columbus, had an attractive exhibit of art tile, designed for ornamental walks, verandas, floors, etc. This tile is made from Portland cement by a new process, which produces a most durable material, of surpassing



beauty in color and design, at a minimum cost. The Scheibell-Brown exhibit was greatly admired by the ladies, as well as the officials at the convention.

The Welsbach Street Lighting Company of America illuminated the convention hall with a number of their well known lights. To the officials who were not familiar with the excellence of the Welsbach light this exhibit was somewhat of an innovation. As is quite well known, the Welsbach patent not only economizes in consumption of gas, but makes an illumination as brilliant as electricity, and one that is much better diffused.

The Gamewell Fire Alarm Telegraph Company, of New York, exhibited the many excellent qualities of the Gamewell fire and police telegraph systems. This exhibit was in charge of Mr. Chandler and Mr. Kirran, of the Gamewell forces, and under their operation it demonstrated to the officials present the marvelous efficiency and reliability of the Gamewell system.

The Mack Manufacturing Company, of Pittsburg, Pa., represented by J. G. Ruple, secretary, exhibited their well-known paving blocks, which for strength, durability and economy, cannot be surpassed.

Seagrave & Co., of Columbus, displayed a large and handsome hook and ladder truck, equipped with the latest improved truss ladders and apparatus which any fire department in the country might well be proud of.

The Sun Vapor Street Lighting Company, of Canton, O., has on exhibition a number of modern gasoline lamps, which attracted considerable attention on account of their beauty, cleanliness and simplicity of construction.

The O. S. Kelly Company, of Springfield, Ohio, which is probably the largest concern in its line in this country, gave a working exhibition of its steam road rollers. The excellency of these machines is too well known to need comment at this time.

The Fabric Fire Hose Company, of New York, displayed samples of their wax and gum treated balance woven fire hose. This concern is the largest exclusive manufacturer of fire hose in the world.

T. N. Motley & Co., of New York, had on exhibition one of their Ideal bag carriers, which has been found by many cities to be an excellent appliance for facilitating street cleaning.

National Meter Company, of New York, represented at the convention by A. P. Corse, exhibited their well-known water meters.

Muskegon Chemical Engine Company, of Muskegon, Mich., showed a number of modern chemical fire extinguishers.

The Nelsonville Sewer Pipe Company, of Nelsonville, Ohio, made an interesting exhibit of sewer pipe and drain tile.

The Dixon Sanitary Crematory Company, of Findlay, Ohio, illustrated the good qualities of their garbage disposal system by an exhibit of drawings and photographs.

John Murphy & Co., Columbus, Ohio demonstrated the advantages of using their droust filler for brick and all kinds of block paving.

The New Haven Gas Stove Company, of New Haven, Conn., made an interesting showing of novel metal street signs.

H. M. McDonald & Son, of Galion, Ohio, displayed some ingeniously contrived sewer inlets.

Rumsey & Co., of Seneca Falls, N. Y., well-known manufacturers of fire apparatus, displayed the photographs of many beautiful and perfect fire fighting machines.

The Thomson Meter Company, of Brooklyn, N. Y., were represented by E. T. Ivins, who displayed the virtues of the well-known Thomson meter.

Other interesting and instructive exhibits were made by the Columbus Brass Company, of Columbus, Ohio; the Alliance Trenching Brace Company, of Alliance, Ohio; the Indiana Road Machine Company, of Ft. Wayne, Ind.; the Aluminum Sign and Novelty Company, of Columbus, Ohio; McDonald Brothers, of Columbus, Ohio; Athens Brick Company, of Athens, Ohio; the Lead Lined Iron Pipe Company, of Wakefield, Mass.; the International Street Sweeping Machine Company, of Dayton, Ohio; Kinnear & Gager, of Columbus, Ohio; New York Filter Manufacturing Company, of New York; Buckeye Portland Cement Company, Bellefontaine, Ohio; Columbus Street Lamp and Novelty Company, of Columbus, Ohio; Neptune Meter Company, of New York; Indiana Street Cleaning Company, of Indianapolis, Ind.; Columbus Machine Company, of Columbus, Ohio; Stillwell-Bierce & Smith-Vaile Company, of Dayton, Ohio, and the A. P. Smith Manufacturing Company, of Newark, N. J.

### CONVENTION AFTERMATH.

President MacVicar, upon his return to Des Moines, was tendered a public reception by his fellow citizens. The reception was held in the court house, and was attended by thousands of Des Moines people, who heartily congratulated their mayor upon having been honored so highly at the Columbus convention. Lack of space prevents a more extensive notice of this function in this issue of CITY GOVERNMENT.

Mayor Pratt, of Minneapolis, had the following interview in the *Daily Times* upon his return: "The convention was a splendid success, and was harmonious to a marked degree. I notice by the papers that there was a disagreement of opinion in the body over certain questions, but as far as I could see these features of the convention were created almost wholly by the press. The work taken up was of a nature highly beneficent. Problems pertaining to municipal work were considered. Men of recognized merit on these matters spoke upon them, and the exchange of opinion met with was instructive to a great degree. There is no doubt in my mind that great good will result from the association. It cannot be otherwise. The annual meeting next year will be a success, more so even than that of last week. The representation was gratifying. Prominent men were there from the East and South, men whose opinions commanded respect and attention merely through the far-reaching fact of their reputation alone. The disturbing factors spoken of by some of the papers I did not materially note, as I have already stated, and think they were largely the production of reportorial skill."

Mayor Collier, of Atlanta, was interviewed by the *Journal* upon his return, and, in the course of his remarks, he said: "I believe decided good will result from the league. It is formed on a plan which insures permanence, and every city holding membership is assured direct benefits, especially from the bureau of information which is to be established. We had a glorious time, and were certainly royally entertained by the Columbus people."

Mayor Jones, of Toledo, in an interview in the *Blade*, said: "The convention was a success, and it demonstrated that there are some able men in charge of the affairs of the various municipalities. We had some very pleasing addresses, and those of Mayor Quincy, of Boston, and Mayor MacVicar, of Des Moines, were especially brilliant. The very best men in the country gave interesting talks on street paving, both by asphalt and brick, on sewer systems and sanitary drainage, garbage collection and municipal lighting, and all the other things that city officials are interested in. Much good will result from the permanent organization formed."

CITY GOVERNMENT has also received newspapers from Wilmington, Del., and Cumberland, Md., containing long interviews with Colonel Leitch, president of the Wilmington council, and Mayor Mellinger, of Cumberland, both of whom spoke in enthusiastic terms of the convention and the League of American Municipalities.

Mayor Johnson, of Fargo, vice-president for the State of North Dakota, has already sent out a circular calling upon the mayors of his State to meet in Fargo on October 19, for the purpose of organizing a State association, to be subordinate to the League of American Municipalities.

Mayor Doran and Comptroller McCarty, of St. Paul, were interviewed by the *Dispatch*, of that city, and expressed themselves as being very heartily in sympathy with the views of the league formed at Columbus. The *Dispatch* says: "Mayor Doran and Comptroller McCarty are very positive in their statements denying the telegraphic reports sent out from Columbus that the usefulness of the organization was destroyed by the election of B. F. Gilkison as secretary. They say that the fight made on Gilkison came from corporations interested in municipal monopolies entirely, and that it was catered to only by the representative of the Associated Press at the convention. They declare that the newspaper man showed his preferences so decidedly that his sentiments were known to every delegate. Under the circumstances they both declare that only by the election of Gilkison was the perpetuity of the organization assured."

### NATIONAL STREET LIGHTING CONVENTION.

The second annual convention of the National Street Lighting Association was held at Columbus, Ohio, September 28-30, at the same time as the meeting of the mayors and councilmen. When President B. L. Lambert, of New Haven, called the convention to order there were present delegates from all parts of the coun-

try. In his annual address, President Lambert made the following recommendations, which were favorably acted upon:

To make CITY GOVERNMENT, of New York, the official organ of the association.

To grant honorary membership to B. F. Gilkison, H. J. Gonden, E. C. Brown, of New York, and A. R. Foote, of Washington.

To offer a gold medal of honor for the best invention applicable for street lighting, the medal to be awarded at the 1898 convention.

To establish a bureau of information.

To petition Congress to secure statistics on the cost of street lighting in foreign cities and to furnish such statistics to the association.

The annual report of Secretary Henry Hopkins, of New Haven, reviewing the progress made by the association during its first year in a comprehensive and interesting style, was presented.

Mr. Charles F. Hopewell, superintendent of wires and lamps of Cambridge, Mass., read an exceptionally interesting paper on "Electric Light Wiring," in which he touched upon every minute detail and condition of street wiring; he also offered many valuable suggestions as to the manner of doing such work, and upon concluding was warmly applauded by his audience.

Mr. D. Hunter, Jr., superintendent of lighting, of Allegheny, Pa., read a paper on "Chaotic Condition of Our Street Lighting Systems as to Cost, etc.," in which the author expressed a decided favor for municipal control of electric light and gas plants. Mr. Hunter referred to the success of the plant of municipal ownership in his home city; the cost of lighting that city is \$74.32 per light each year for 2,000 candle power arc lamps. The plant of Allegheny has a value of \$349,921, including the street wiring and complete equipment, and is considered a profitable investment.

Following this address was an impromptu discussion of municipal ownership, the negative being led by Mr. Barker, of Boston, gas commissioner of the State of Massachusetts, who was vigorously opposed to municipal control of electric lighting plants, especially in the State of Massachusetts.

Hon. Arthur C. Hastings, of Niagara Falls, read an exceptionally interesting paper on "The Power Development of Niagara Falls," in which the capabilities of the electric plant already established there were outlined in detail. The great possibilities of the future were touched upon with intelligent comprehension, and in a manner wholly satisfactory to the members of the association present.

Secretary Henry Hopkins, superintendent of street lighting, of New Haven, Conn., gave his reasons for believing "Why the Association Should Retain Its Individuality and Should Merit the Support of All Cities and Towns."

Mr. A. D. Mead, gas inspector, of Minneapolis, gave a short talk on the street lighting system of his city.

Officers for the ensuing year were elected as follows:

President, D. Hunter, Jr., Allegheny, Pa.

Secretary, Charles E. Burton, New Haven, Conn.

Treasurer, C. E. Thompson, Binghamton, N. Y.

Assistant Secretary, C. F. Roberts, New Haven, Conn.

The president was authorized to appoint at some future date five vice-presidents in different sections of the country, whose duties shall be to work up interest in the association. He was also authorized to appoint a committee of three to arrange for the transportation for next convention.

A resolution was offered fixing the annual dues for the year at \$5, but this amount was considered a little too high, and an amendment was made and carried fixing the dues at \$3 per year.

Binghamton, N. Y., was selected as the place for the convention, the date of which is to be fixed by the executive committee.

#### AN IRON-CLAD CITY CHARTER AND THE BENEFICIAL EFFECTS THEREOF.

ADDRESS BY J. J. M'CARDY, COMPTROLLER, ST. PAUL, MINN.

MR. PRESIDENT AND GENTLEMEN—On June 1, 1891, the city of St. Paul was placed under the provisions of an amendment to the general charter of the city, an amendment known as the Bell charter, so called in honor of C. N. Bell, a member of the State Legislature from the city of St. Paul at that time. Among other things, this amendment provided for a dual council, composed of one member from each of the eleven wards of the city, and an assembly of nine members elected by the people at

large. Ordinances, resolutions, etc., may originate in either body, and will have to be adopted by a certain percentage vote of both bodies, acting separately, before becoming operative. The mayor has veto power over all measures originating in the council. Some of the strong points of this charter are:

First—It forbids the transfer of funds from one account or department to another.

Second—It limits each department to the amount placed in the tax estimate for the expenses of such department.

Third—Assessment funds can be used only for the purposes for which they are levied.

Fourth—A conference committee of all heads of the different departments. This committee meets monthly.

Fifth—A dual council, which insures care and deliberation in legislation, and in the expenditure of city funds.

These titles explain themselves. It is apparent that the transfer of funds from one department or account to another would easily lead to a confusion of accounts and a waste of money, and the iron-clad limitation requiring departments to keep within their allowance is most beneficial to all concerned. The provision regarding funds raised by assessment for special improvements gives confidence to the contractor that the funds raised for his contract will not be diverted to other purposes, and he gauges his bid accordingly.

In the month of December, each year, the city comptroller is required to submit to the conference committee his estimate of the amount of money necessary to maintain the business of the city, operated through the following departments, for the fiscal year commencing January 1:

1. Interest and sinking fund; 2. redemption of bonds fund; 3. certificates of indebtedness fund; 4. fire department fund; 5. police department fund; 6. lighting fund; 7. water supply fund; 8. board of control fund; 9-10. school fund; 11. building inspectors' department fund; 12. health department fund; 13. Court House and City Hall maintenance fund; 14. workhouse fund; 15. engineering department fund; 16. Board of Public Works fund; 17. city officers' salary fund; 18. street, sewer and bridge maintenance fund; 19. bridge repair fund; 20. judgment fund; 21. printing and stationery fund; 22. municipal court fund; 23. library fund; 24. general fund.

The conference committee passes its judgment upon this estimate, adding to or taking from, as it may deem best. As amended by the conference committee, this report is sent to the common council, it having the right to revise same, which must be done during the month of January. After this estimate has been approved by the common council it then becomes the basis of expenditures by the various departments for that fiscal year, and cannot be changed, nor can any department expend a greater sum than the amount allowed in the estimate.

Our monthly meeting of the conference committee (which is composed of the heads of all departments) keeps each department posted regarding the transactions in other departments. The head of each department must make a sworn written report of the transactions of his department for the month just closed. Absence by such officer for two successive meetings, or a failure to make his written report for two such successive meetings, by our charter, deposes him from office, and without any other formality he is considered to have resigned. The meetings are promptly attended. No excuse can be taken, no power to relieve, and he cannot be re-appointed nor re-elected to his position until after the expiration of one year from the failure to make such report. The conference committee has the power to call a halt on the expenditures of any department thought to be extravagantly using its funds. After a notice from this conference committee to such department, no further expenses can be made by that department, save on a three-fourths vote of the conference committee. No officer or board of any department can incur any liability of any nature whatever on behalf of the city until such power is first granted by resolution of the common council, and no claim can be audited unless the aforesaid resolution is attached thereto. The purchase of a lead pencil, a bushel of oats or a policeman's club cannot be made until a resolution has first authorized such expenditure. This requires the various departments to think, at least, a little in advance of



their needs. It might be thought that this would seriously interfere with the management of the city's affairs. Such is not the fact; but it requires closer care and attention to each department's affairs by the head thereof.

Our council has not the power to allow or order the payment of any account, claim or demand until the same has first been audited by the comptroller. The comptroller is also forbidden to audit any account, claim or demand of any nature whatever, unless there is funds in the treasury applicable to the payment of such claim. A penalty of \$5,000 and a term in the State's prison follows the violation of this law. It is unnecessary to say that this law has not been violated.

Our people understand the system and are well pleased. The growth of the city and changes in public affairs will require more elasticity in this charter, and amendments thereto will be made when the necessity arises. Our charter gives the comptroller power to inspect the treasurer's office at any time. Hence we have for the past five years daily checked up every entry, every receipt issued, balanced the cash, and by this the accounting department knows at the close of business every day just how we stand. The provisions of our charter, having been enforced to the letter, have resulted in the past five years as follows:

Our interest-bearing debt has been reduced \$2,000,000, and in that period we have not renewed nor issued a single bond, all paper having been met at maturity. In the past five years we have placed \$500,000 in the sinking fund. We owe nothing but our bonded debt, which, including water bonds, amounts to \$8,332,100. There are no unpaid bills over thirty days old, and we have funds in the treasury to pay the expenses of all departments to the end of the fiscal year, December 31. For the year 1897 it takes \$250 a day less to pay interest than it did in the year 1892. In addition to this last year we reduced our assessed valuation 24 per cent., and for all operating expenses, interest, and the payment of maturing obligations, etc., it required 30 per cent. less for 1896 than it did for 1895.

#### THE DECARIE AUTOMATIC GULLY CLEANER.

One of the most interesting machines for municipal work exhibited at the Columbus Convention was the Decarie automatic gully cleaner, for cleaning out gullies or catch-basins, night soil vaults, etc. A practical test of this apparatus was given on the streets of Columbus, and the rapid and thorough manner in which it removed the silt, manure, street washings, etc., from the catch basins elicited applause and wordy commendation from the many city officials present. The machine consists of a large, air-tight, iron tank, mounted on a strong wagon. Two air pumps, driven by eccentrics from the rear axle, are connected with the tank, and as the wagon is driven along the street these pumps exhaust the air in the tank and create a vacuum. A 5-inch suction hose, the end of which has a bell-shaped mouth, is connected with the tank by a coupling and valve. Upon arriving at the catch basin to be cleaned, the suction hose is inserted in the semi-liquid mass, the valve is opened, and the contents of the catch-basin are sucked into the tank instantaneously. This operation is repeated at the different catch-basins, until the tank is filled, when it is taken to the public dump. During the whole of this process the tank, which is the receptacle for the refuse, is hermetically sealed, thus preventing the escape of unpleasant and unhealthy gases. With this machine three men can easily do the work that requires fourteen or fifteen men under the old system of hand work. The use of this apparatus not only minimizes the cost of cleaning catch-basins, but it is necessary for the protection of the public health. The machine is the invention of Felix L. Decarie, engineer, of Montreal, Canada, and is manufactured and sold by Henry W. Atwater, 72 Imperial Building, Montreal.

#### ABOUT A MUNICIPAL WATER PLANT.

ADDRESS BY JOHN CAULFIELD, OF ST. PAUL, PRESIDENT OF AMERICAN WATERWORKS ASSOCIATION.

MR. PRESIDENT AND GENTLEMEN OF THE CONVENTION—As I understand the general purpose of this important gathering of representatives of municipal administration, it embraces the consideration, by those qualified by knowledge and experience to discuss them, of all problems involved in the science of municipal government. No subject which relates entirely, as mine does, to cold water and its uses can be especially inspiring. It possesses at least two admirable features: It enjoins and necessitates the strictest temperance in its treatment; while in the figurative sense alone can the subject be regarded as a dry one. There may be other departments of local government which appeal more strongly to the imagination of the citizen and the voter. There is none which affects more nearly the hygienic or even the æsthetic tendencies of society. There are communities, I am informed, in which the consumption of other fluids for internal use is decidedly encouraged by popular indifference on the subject of the water supply. And it is a noteworthy circumstance in this behalf that the most severe criticisms which I have yet heard of the prevailing practices in the management of water departments have come from those communities. Yet, I am encouraged to believe that when the importance of water as a purifying and corrective agent becomes better understood, the people of such great communities, for instance, as Milwaukee, Cincinnati and St. Louis, will learn, as even the cities of the great State of Kentucky are said to have fully realized, that water is at least an indispensable adjunct to any really well-selected beverage.

This tendency, no doubt, plays its part in the disposition of the people to concern themselves actively, in all well-ordered cities, in the administration of their water department. This increased interest on the part of the people is not, I assure you, at least in the city of St. Paul, in the slightest degree embarrassing to the water officials. We rather encourage the disposition up there, except alone when it is manifested around election time, and when it implies a disposition toward "pernicious activity" on the part of local politicians in the direction of finding places for the faithful.

For fifteen years the water supply of St. Paul and its administration have been in the control of the municipality; and during that fifteen years our efforts have been to administer the affairs of the department just on the same principles of economical and business management as if it were a private industry. In no sense or degree has there been any departure from those rules of conduct which must govern in the management of a successful business enterprise. The members of the board of water commissioners have been chosen exclusively from among the recognized leaders in the business community. Politics have played no part whatever in our affairs. Not a single appointment has been insisted upon by a member of the board, the power of subordinate appointment being left by the board, since the organization of the board itself, to those responsible for the actual management of the different departments.

The beauties of rotation in office which commend themselves so strongly to the party political orator, have, I am afraid, been sadly overlooked in the management of the St. Paul water department. When a man shows himself to be faithful and competent he continues to hold his place without regard to race, politics or previous condition of servitude. The first engineer employed in the department is still in its service. Men in the office, as well as in the mechanical departments, have served from periods ranging from five to twenty-five years. I myself have been connected with the works for twenty-seven years.

It may be, gentlemen, that we have seriously undermined the bulwarks of the constitution, and even of the American Government itself, by our conduct in this respect. There have been very many estimable gentlemen, distinguished mostly by their zeal for the party, who have denounced us in unmeasured terms for our tendency toward the so-called un-American principle of life tenure of office; but we have had to bear with the denun-

ciation. We have stuck to our guns. We don't find it necessary to inquire of candidates for appointment whether they can name the rulers of Siam for the past 2,000 years; but we do, nevertheless, believe in the civil service system. And we believe we have reason to be proud of its results. We know that nothing like the same results could be obtained under the system of party political appointment. Here are some figures:

The cost of the works to the city was.....	\$3,810,000
Bonds .....	2,560,000

Paid from revenue of the works .....	\$1,350,000
--------------------------------------	-------------

Surplus received from revenue .....	\$1,350,000
Sinking fund .....	450,000

Surplus .....	\$1,800,000
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The interest on the bonded debt has been paid by the water board out of the earnings also.

This has been accomplished in less than fifteen years; while rates in the interval have been reduced in the ratio of from 50 to 75 per cent. To-day they are practically the lowest rates in the United States, while the consumption per capita is as low as, if not lower than, in any city in the land, and the cost of pumping as low as anywhere.

It is in no spirit of official egotism that I have taken the liberty of placing these considerations before you. It is only because I believe that everything should be done that can be done to release the administration of every department of government from the incubus of political appointment, and to insist upon purely business principles in official administration.

In conclusion, I take the liberty of calling the attention of my fellow water officials to the existence of the American Water Works Association, through the agency of which I believe we can move more steadily and rapidly along the line of the more efficient and economical management of municipal water works, and secure the promotion of the spirit of personal good feeling and co-operation among the men who are entrusted with this important public interest.

### FIRE AND POLICE TELEGRAPHERS.

The second annual convention of the International Association of Fire and Police Telegraph Superintendents, held at Nashville, Tenn., September 14 and 15, was a success in every respect.

The convention was called to order in the parlors of the Maxwell House, Tuesday morning, September 14, by President Mason, who, after the preliminary business received attention, delivered his annual address, in which he reviewed the organization of the association and the work accomplished during the year. He congratulated the association on the progress made, and predicted a successful future.

The reports of the secretary and treasurer were read and accepted. They showed the association to be in a flourishing condition. There has been a steady increase in membership during the year.

Papers were read by John W. Aydon, of Wilmington, Del., on the storage battery and its application to fire and police telegraph systems; Captain William Brophy, of Boston, on modern construction and maintenance of fire and police telegraph lines; and Adam Bosch, of Newark, N. J., on a history of the fire and police telegraph.

Will Y. Ellett, of Elmira, was elected president; Captain William Brophy, of Boston, vice-president; H. F. Blackwell, of Brooklyn, corresponding secretary; Burt McAllister, of Bradford, Pa., financial secretary, and Adam Bosch, of Newark, N. J., treasurer.

The following executive committee was elected: F. C. Mason, of Brooklyn, chairman; J. M. Aydon, Wilmington, Del.; J. F. Zeluff, Paterson, N. J.; William Thompson, Richmond, Va., and J. N. Pearson, Des Moines, Ia.

Elmira, N. Y., was chosen for the meeting place next year.

### CREDIT TO COLUMBUS PAPERS.



J. S. MOSSGROVE. *m*

for the effective work he did for the convention, both through the columns of the *Journal* and in other ways.

Too much credit cannot be given to the daily papers of Columbus for the liberal and able manner in which they reported the proceedings of the mayors and councilmen's convention and for the splendid assistance they gave the advance arrangements. For weeks prior to the convention date the newspapers of Columbus were full of interesting matter pertaining to the coming event, and the publicity thus given the meeting doubtless had much to do with the large attendance. We must accord especial credit to J. S. Mossgrove, the city hall reporter of the *Ohio State Journal*,

### A SUCCESSFUL VOTING MACHINE.

The United States voting machine is the one used at recent elections at Hornellsville, N. Y., and a fair idea of its qualities may be had from reading what City Clerk Ossoski, of that municipality, writes as follows:

The voting-machine law permits us to register and vote 600 voters in each election district. Had we retained the old system of voting we would now be obliged to have double the number of election districts and more than double the number of election officers that are now required by the adoption of the machines. In our city, with a population of 13,000 and a voting strength of about 3,400, the old law, under the amendments of 1896, would have made necessary a division of each of our wards into two voting precincts. By the adoption of the machines, therefore, we need only one-half as many election districts as formerly, and less than one-half as many election officers, resulting in a saving to the city of \$800 at each general and city election in the one item of salaries paid election officers. The further sum of at least \$200 is saved annually in certain other adjuncts of elections as carried on under the old system now done away with by the use of the machines; thus making a total saving yearly of \$1,800. I am speaking now, you understand, directly to the point respecting the advantage in the use of the United States machines from a standpoint of economy only. As concerns the other untold and numberless advantages the machines have over the ballot system, you already know my own views and those of the city officials and citizens generally to be unequivocally in favor of the machines as the best, surest and safest system of voting yet devised.

The New York State Commission on Voting Machines made the following official report on the United States machine:

The New York State Commission appointed to examine voting machines hereby certify that they have examined, as required by law, a machine, No. 358, presented by the United States Voting Machine Company, of Jamestown, N. Y., and claimed to be made under letters patent of the United States to Davis, No. 526,668, September 25, 1894; No. 549,631, November 12, 1895; No. 549,901, November 19, 1895, and under applications for patents still pending, and state the following as their conclusions:

1. That the machine examined is, in their opinion, of sufficient capacity, if operated under reasonable regulations, to register the votes of 600 voters within the time allowed by law for holding an election.

2. That it is capable of doing the work with accuracy and efficiency.

3. That it may be safely used for such purpose.

4. That it is strong in its parts, positive in its actions, and capable of adjustment to facilitate voting under varying conditions. It will permit the voting of straight or party tickets at one action, or the selective voting for groups or individual candidates and the voting for irregular candidates. It may also be adjusted to restrict the votes of classified or limited voters to particular questions.

5. That the State Legislature will be justified in legalizing the adoption of the machine.



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## EDITORIAL OPINIONS OF THE CONVENTION.

The convention of mayors at Columbus, Ohio, is a good beginning in a right direction. There ought to be such a convention every year. The complex problem of municipal government, peculiarly difficult under our democratic system, tends more and more to reach its solution through the office of mayor. Wherever good municipal government is earnestly sought the tendency is more and more to exalt the mayoralty; more and more to concentrate power and responsibility in the mayor's hands. This condition and this tendency very greatly increase the importance of the mayoralty. They especially impose upon mayors the duty of working out in conference the true principles of mayor government, the study of municipal problems by those who are peculiarly charged with the solution of such problems, and, so far as may be, the creation of a science of municipal government, precisely as the school teachers have wrought out a science of pedagogy. By all means let us have annual conventions of the mayors, and in preparation for that let us elect for the Greater New York a mayor qualified to take the lead in every such convention.—*World*, New York.

The idea of holding an annual national convention of mayors and city councilmen for the purpose of discussing municipal affairs is an excellent one. If it is conducted on broad, non-partisan lines, the permanent organization formed by the conference of mayors in session at Columbus may produce worthy results. There is no civilized country in which the science of municipal government is so little understood and so badly practised as in the United States. The typical American mayor needs all the instruction he can get in the fundamental principles of civic administration. If he can be induced to attend a summer school for teaching this knowledge so much the better.—*Commercial Advertiser*, New York.

The organization of a permanent body and the holding of annual meetings ought to help along the movement toward more scientific and businesslike methods of managing our cities. Any step that will stimulate those in authority to greater zeal and enthusiasm in the exercise of civic functions and quicken their desires for more efficient and equitable government is a positive gain for a good cause.—*Free Press*, Detroit, Mich.

The convention of mayors and councilmen of the United States and Canada, which begins a four days' session at Columbus, Ohio, to-day, promises to be one of the most important gatherings of the year. It is not likely to develop a full measure of usefulness this year, for, being the first meeting of its kind, many will not be represented. But the mayors of some of the principal cities of the United States and Canada will be in attendance, and they will discuss municipal affairs and exchange ideas for

the improvement of conditions in cities in such a temper that officials present and absent will give more thought to such matters in the future.—*Star*, Kansas City, Mo.

Columbus, Ohio, has the honor of entertaining the first convention of mayors of American cities ever held. The institution ought to grow year by year, until its deliberations are joined or shared by practically all municipal heads in the country. The field of discussion is enormous, and conclusions arrived at will tend to remove most serious defects now observed at centres of population.—*Chronicle-Telegraph*, Pittsburg, Pa.

The launching of the American League of Municipalities by the mayors and councilmen in session here this week was a momentous event. It definitely inaugurates a movement that is unique, and that bids fair to have far reaching and most practical and beneficial effects in the line of municipal improvements.—*Dispatch*, Columbus, Ohio.

There is no doubt that conventions of this kind ought to result in great good to the cause of wise, honest and efficient city government.—*Chronicle*, Chicago.

To a greater extent than the people of Erie believe the eyes of the nation are at this moment upon Columbus. It is popularly supposed here that the convention of mayors is a sort of junket, and that all are there for a good time. But that there is business behind it all, and business of vital importance, many of the larger cities of the country are well satisfied.—*News*, Erie, Pa.

It is highly probable that the cities sending delegates to this convention will derive more practical good from the exchange of ideas by their representatives at Columbus than could be obtained from a score or two of the "junkets" so dear to the city official's heart. If these gatherings become a permanent annual institution there will be small excuse for aldermanic junkets, for city officials and councilmen will be able to acquire at small expense of time and money the fruits of the combined experience of all the cities in the country in dealing with various municipal problems.—*Tribune*, Chicago.

The mayors' convention at Columbus, Ohio, is worthy of serious thought and support. The effect on the mayors must be to inspire them with a fresh sense of their responsibilities to the public and to stimulate them to make excellence of city government their prime object.—*News*, Lowell, Mass.

The national convention of mayors and councilmen at Columbus brings out lots of wisdom. Let us hope that some of it may percolate into the administrations that are represented.—*Standard*, New Bedford, Mass.

G. L. REED, Pres. G. S. ETTLA, Sec'y and Treas.  
E. B. REED, Superintendent.

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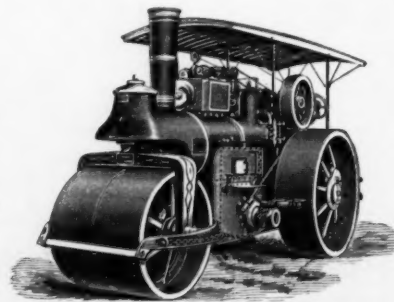
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The attention given to the papers read, the earnestness of the discussions and the fact that a national organization was formed for holding annual meetings all prove that a movement has been started which is to exert a profound influence on the management of cities.—*Press*, Philadelphia.

The League of American Municipalities can be made useful in a variety of ways, and its proceedings should appeal to the earnest consideration of every thoughtful citizen.—*Republic*, St. Louis.

The first national convention of mayors and councilmen of American cities opened at Columbus, Ohio, yesterday with an attendance of about 400 representatives. This is a larger attendance than was expected, but many cities are not represented, for the very good reason that the mayors and councilmen are too busily engaged in looking after their fences at home. The convention will doubtless be of value, but it is unfortunate that it could not have been held at some other time than at the beginning of the fall campaign.—*Times*, Troy, N. Y.

The convention will stimulate the movement everywhere for better, more economical and, in cases where needed, more honest administration of city affairs. All such matters will doubtless be discussed from the standpoint of business men, and aside from all partisan and political considerations, as politics, of course, will not be permitted to enter into the proceedings of the organization.—*Intelligencer*, Wheeling, W. Va.

The Columbus convention is discussing a variety of topics associated with city management. Street lighting, traction fran-

chises, municipal ownership in general, sewer systems, water supply, police administration, and dozens of similar subjects are being taken up with earnestness and skill, and the debates on them thus far indicate that in many of the cities the public affairs are in the hands of men who closely study general as well as local conditions, and strive to keep fully abreast of the times. The interchange of views and experiences must result beneficially to the communities thus represented at the convention, and it is fortunate that the projectors of the gathering extended its scope so as to include the members of the councils, whose direct acquaintance with the latest phases of municipal problems is needed to give full force to whatever advanced and wholesome ideas may be brought forward by the mayors. These conventions may eventually prove of great value as national municipal clearing houses.—*Star*, Washington, D. C.

The Columbus convention may be the beginning of a businesslike administration of local affairs by getting great and little minds together for mutual advice, counsel and assistance on common problems.—*Dispatch*, St. Paul, Minn.

ST. PAUL, September 16, 1897.

I think CITY GOVERNMENT is an excellent investment for any person having to do with municipal affairs.

F. B. DORAN, Mayor.

GRAND RAPIDS, Mich., September 2, 1897.

I regard CITY GOVERNMENT very valuable for information connected with municipal matters.

L. C. STOW, Mayor.



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NEW YORK, August, 1897.

It has come to our notice that reports are being industriously circulated to the effect that THE ALCATRAZ COMPANY has sold out its interests to the Trinidad-Bermudez combine and that the production and use of Alcatraz Asphalt is controlled by such combine. Such reports have been circulated more particularly in Buffalo, Cleveland, Erie, Detroit, Saginaw and Hoboken, cities in which Alcatraz Asphalt has come into direct competition, at the recent lettings, with the asphalt of the Trinidad-Bermudez monopoly.

These reports have been circulated evidently with malicious intent, to deceive the municipal officers and taxpayers of cities throughout the United States by leading them to believe that GENUINE COMPETITION could not be obtained from the bids of those using ALCATRAZ ASPHALT.

We declare all such reports and rumors to be absolutely and entirely false.

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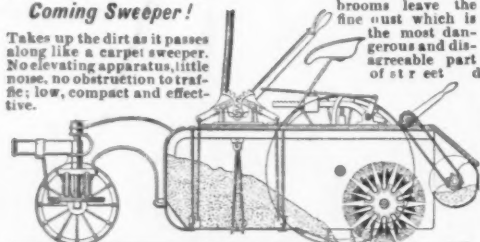
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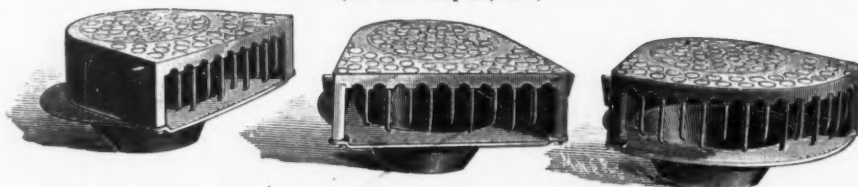
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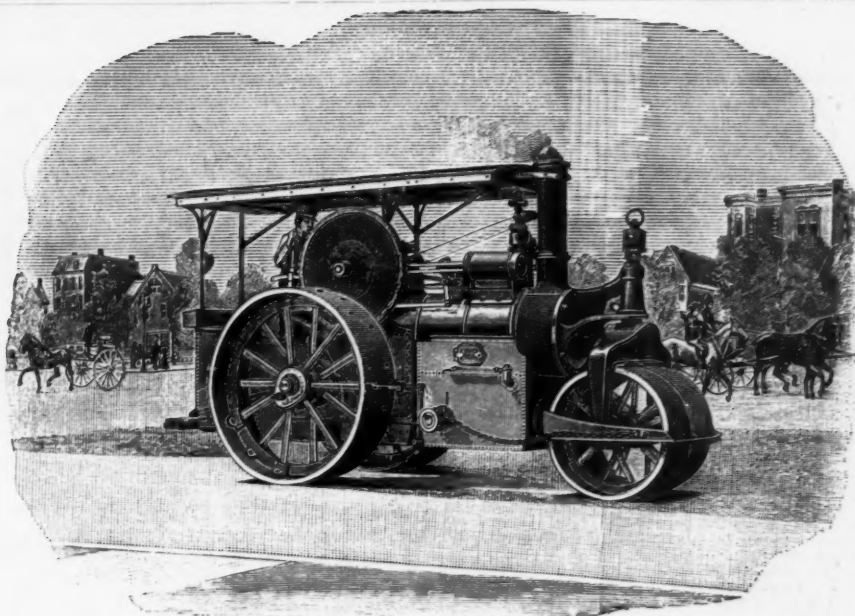
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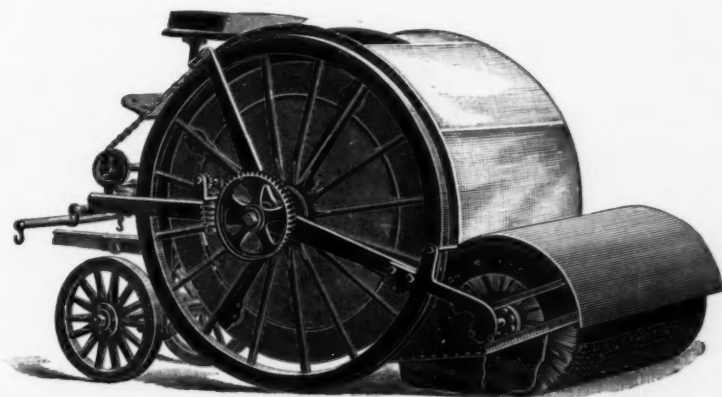


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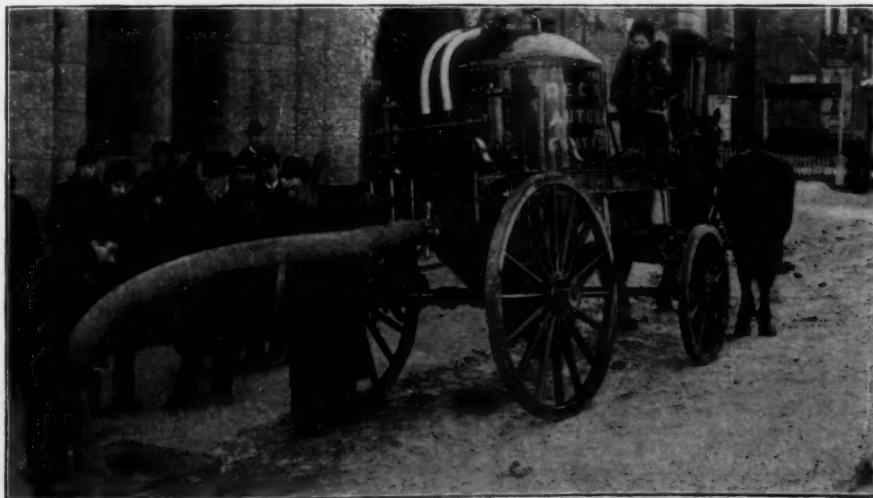
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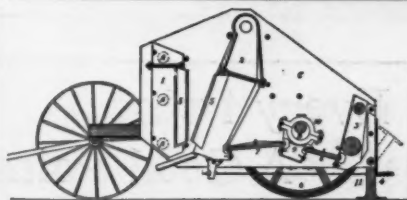
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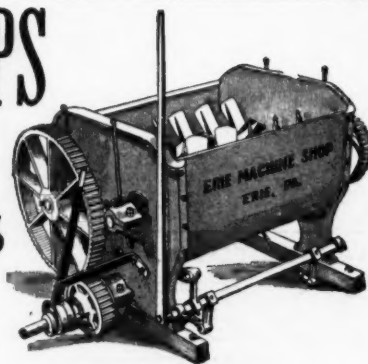
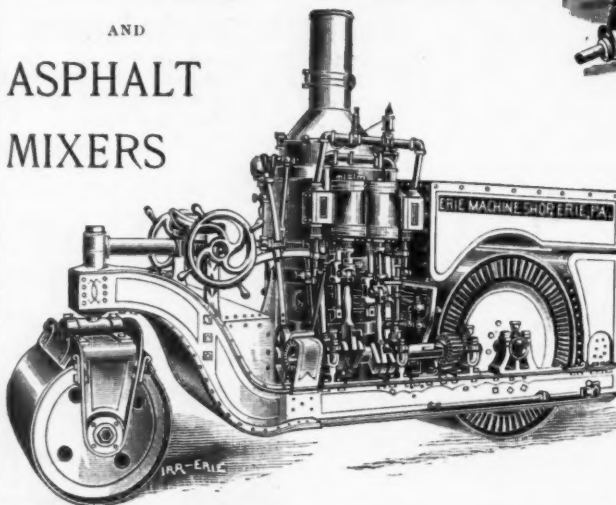
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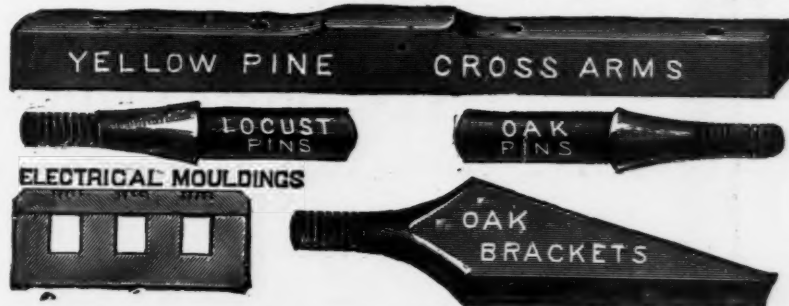
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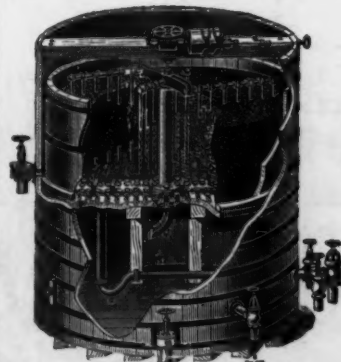
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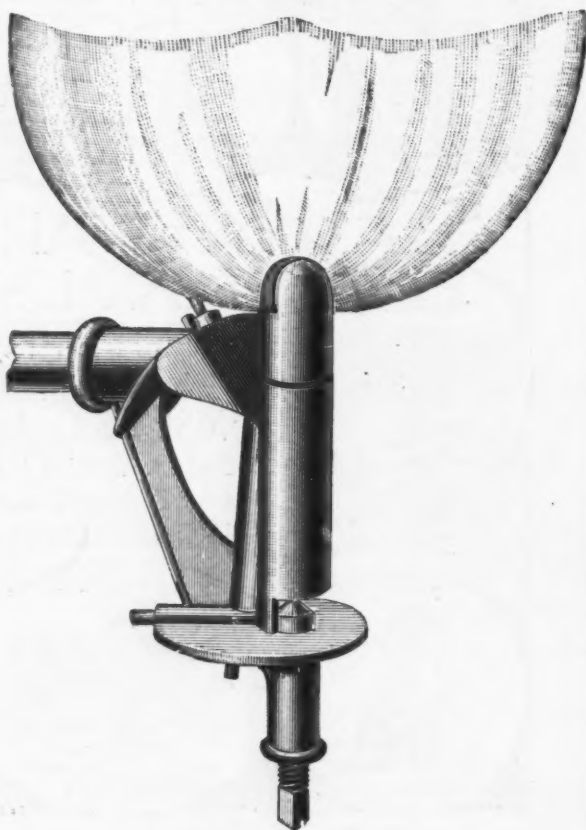
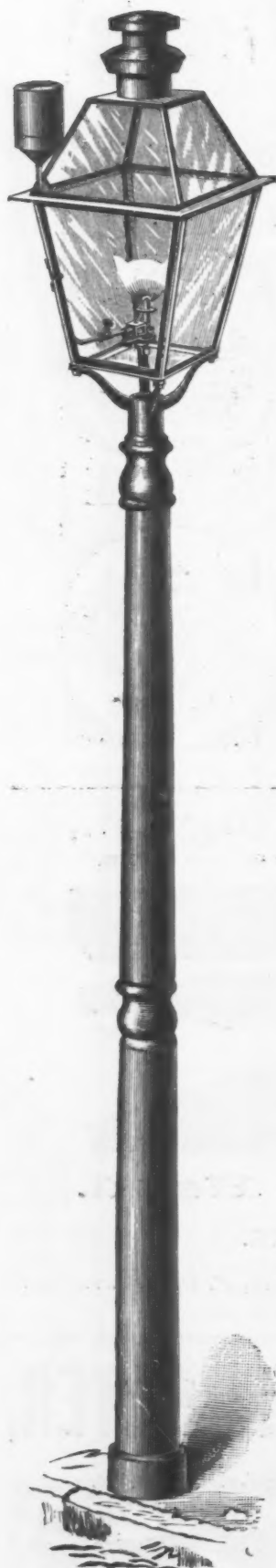


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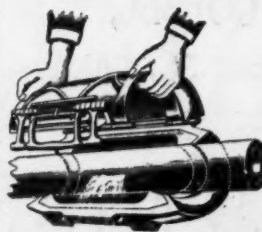
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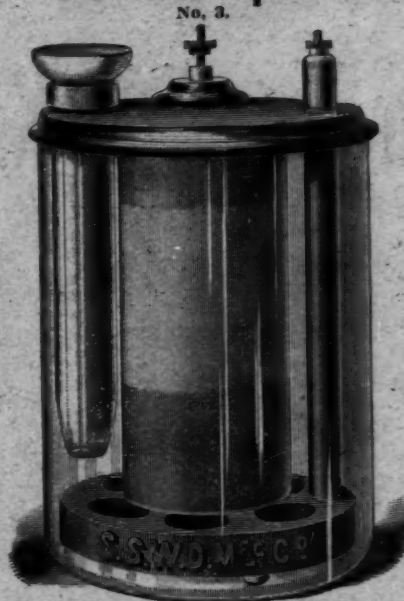
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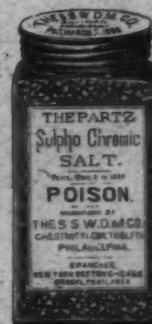
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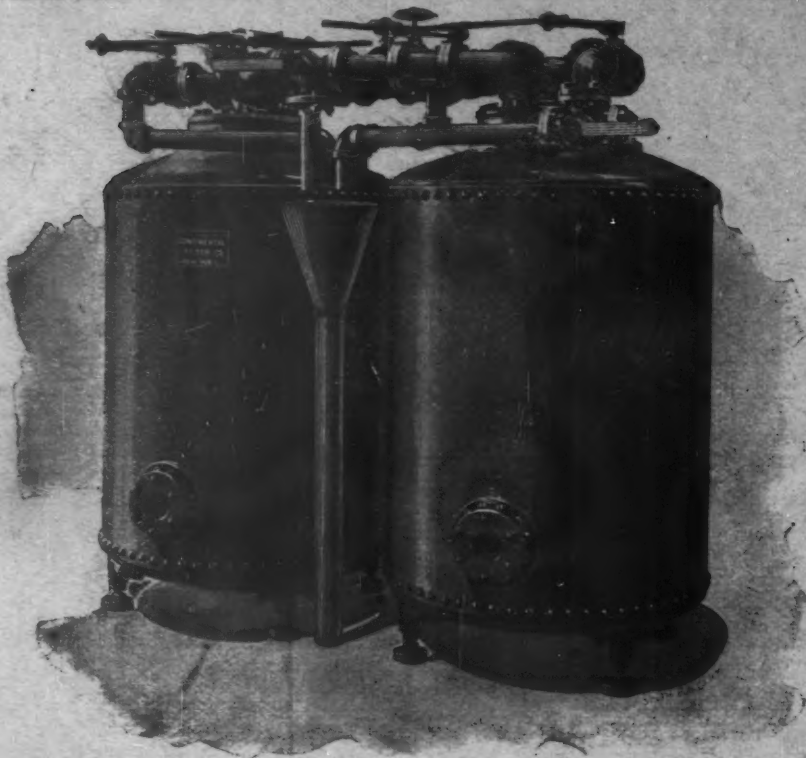
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